

California Council *for* Wildlife Rehabilitators

MISSION STATEMENT:

CCWR works to promote the highest standards of animal care in wildlife rehabilitation by providing educational and networking opportunities among wildlife rehabilitators and regulatory agencies.

FALL 2009

CCWR NEWS

CCWR 15TH ANNUAL SYMPOSIUM

From the Mountains to the Sea: 15 Years of History

The Cliffs Resort at Pismo Beach, CA

Make sure you mail in your registration forms to attend the 2009 symposium at The Cliffs Resort in Pismo Beach November 20-22. Postmark your registration by October 1 and receive a 10% discount.

Check our website (www.ccwr.org) for symposium updates and information about The Cliffs Resort. The Cliffs Resort is offering a special symposium room rate of \$119.00 per night. A limited number of rooms are reserved at the symposium rate, once these rooms are filled the special symposium rate cannot be guaranteed. Room reservations must be made before October 20 to qualify. Make your reservations at The Cliffs Resort by calling 800-826-7827 and identify yourself as part of the California Council for Wildlife Rehabilitators Symposium. Note that The Cliffs Resort will immediately charge your credit card for the first night of the symposium but you are eligible for a full refund if cancelled no later than 72 hours before your arrival date.

Some of the topics offered will be: Trichomonas/Pox/Fungus, Fleas/Mites/Maggots/Ticks, Disaster Preparedness, Basic Squirrel Care and Exclusion/Public Education. Wet labs will be available at a nominal fee for both Avian and Mammal Necropsy. Check your registration brochure for full information on courses offered.

If you haven't received your registration brochure, or need additional brochures please contact CCWR at info@ccwr.org.

If you feel you may not be able to afford the symposium, apply on our website for one of the two scholarships that will be awarded.



Symposium Details:

*Register by 10/1 to save 10%

Event dates: 11/20 - 11/22

Location: Pismo Beach, CA

Accommodations at The Cliffs Resort

Visit CCWR.ORG for info

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Contents of these articles are not peer-reviewed and as such should not be construed as a scientific document. Every effort is made to ensure accuracy, however, the reader is responsible for contacting the contributors should any questions arise. Contents of these articles do not necessarily reflect the viewpoint of the CCWR Board. ©2009 CCWR. All Rights Reserved.

Message From Your CCWR Board of Directors

Recently there was a series of e-mails concerning individuals performing wildlife rehabilitation without permits and the apparent failure on the part of the Department of Fish & Game (DFG) to address these matters. We felt we should address the issue in a simple and cogent manner to the entire CCWR membership.

Nicole Carion

Nicole is assigned to the Wildlife Management Division of DFG. As such, she has absolutely no authority to address any illegal activity. When she is advised of possible illegal activity, her only option is to report same to someone in the Wildlife Protection Division (Wardens). Given the status of the budget in this state along with the fact that DFG has been seriously understaffed for several years, it should come as no surprise that a "renegade rehabilitator" may not be considered a top priority item for the overworked wardens.

Site evaluation

We have heard concerns regarding the issuance of permits to individuals who were rumored to have had a less than favorable report from the CCWR site evaluation team. We as an organization provide a service to DFG in helping evaluate and report findings as directed in a format given to us by DFG. Whether or not to issue a permit to any individual is the sole prerogative of Nicole Carion and it would be improper for us to attempt to "second guess" her decision.

DFG Commission

Any individual who applies for any type of wildlife permit, fulfills all criteria and has their permit application denied is entitled to appeal the denial to the DFG Commission. Again, if all criteria for the permit are met and there exists no extenuating circumstances of a negative nature, present DFG codes "may" result in the commission having no choice but to allow the issuance of the permit.

CCWR

Our organization has absolutely no investigative or regulatory authority. If we become aware of renegade rehabilitators or serious problems/malfeasance with a permittee, we can only report the information to Nicole Carion and, if we have contact information, a Warden in the Wildlife Protection Division within the applicable area. (Nicole must always be notified!).

Reports from CCWR members

If a member contacts us with a report of the above nature, we must advise them of our inability to intercede and, if the report is by telephone, we must urge them to submit the report directly to Nicole. If by e-mail, we should do the same and also forward their e-mail to Nicole. This not only fulfills our responsibilities but is the only thing we can do from a legal standpoint.

Please don't infer from any of this that we do not wish to be kept abreast of any emerging problems or issues with wildlife and/or wildlife rehabilitators. As your Board of Directors we need to know if a particular issue is isolated or is becoming widespread. We wish to represent the cumulative voice of the wildlife rehabilitation community in California. We are always striving to improve care for wildlife, training for wildlife rehabilitators, and provide input to DFG as their wildlife procedures evolve.



Come to Seattle for Symposium 2010!
March 9-13, 2010
Hyatt Regency Bellevue in Seattle, WA
Hosted by PAWS Wildlife Center

The Hyatt Regency is located in downtown Bellevue where there are 250 shops and a multitude of dining choices for every appetite. Other points of interest include Snoqualmie Falls, Seattle Art Museum, Burke-Gilman Trail, Bellevue Botanical Gardens, Pike Place Public Market, and the internationally recognized 1962 World's Fair Space Needle.

The Symposium Committee is working hard on another high-caliber event with valuable information and opportunities including Care and Rehabilitation Techniques, Veterinary Medicine, Behavior and Natural History, Caging, Enrichment, Educational Tools, and Administration Ideas.

Check the website www.nrawildlife.org for Symposium updates.

-Thank You To Sandy Ozuna-

Our Outgoing Newsletter Graphic Artist

Thank you so much for all your years of service preparing the layout of the CCWR newsletter. The superior quality of your end product and instinct for those special touches will be missed. You were such a gift to me, to CCWR and to the membership who cares for the little injured and orphaned creatures that have no voice.

- Leslie Bale

Nature's Animal Control Officers

By Merritt Clifton

Photos by Mona Lefebvre

To fully appreciate coyotes may require getting to know them--not taming them, not trying to interact with them as wild cousins of domestic dogs, just watching and listening.

Long before humans devised Tweeteers to let all their friends and family know where they are and what they are doing at every moment, coyotes learned to bark briefly each evening as they emerge from their dens, which they change almost every night, to tell every other coyote within earshot where they will be hunting and scavenging.

Later, if a coyote has the good fortune to come across a food source big enough to share, the coyote will bark and whirl to summon others to dinner. A large rabbit may feed a mate and family. A roadkilled deer carcass may bring an amplified call to distant cousins.

Soon other coyotes will converge like gray ghosts stealing through the trees. They will exuberantly greet each other, but will only howl again if they feel unobserved. They will eat until the food is gone. Unlike foxes, coyotes do not attempt to store food, especially not something large enough to attract wolves or pumas, who also eat coyotes. Instead, they quickly strip a carcass down to bones, then play for a time before dispersing to find their daytime sleeping places.

Mated coyotes will usually stay together, with their dependent pups. Young adults may pair off at such feasts.

Typically the males slip away from a coyote gathering first. If they sense that any human may be watching, they make themselves conspicuous, then lead the observer as far as possible from the females and young. Sometimes male coyotes will deliberately cross each other's paths to help confuse pursuit.

Unlike wolves, coyote families seldom fight over territory. Instead, they work out ways to share--and at times relieve tension with a prank, or a contest, such as taking turns daring a chained dog to try to chase them. Testing the ability of a chained dog to break loose has some practical survival value for a

coyote, but when coyotes who have just had a big meal tease a dog in relays, it is difficult to avoid concluding that what they are doing is mostly a game, done chiefly to impress each other with their bravado.

Despite the occasional ruckus coyotes raise with dogs, humans should appreciate coyotes as extraordinarily quiet and peaceful neighbors. The U.S. coyote population is approximately equal to the domestic dog population. Most Americans, urban as well as rural, live in coyote habitat. Yet except for the brief evening bark and the dinner time barking whirl, usually heard only by people who happen to be outdoors after dark, most Americans seldom have any idea how close coyotes are. Few human neighbors, and for that matter, few animal neighbors, are as good as coyotes about not disturbing humans--even when they raise a litter in the crawl space beneath an occupied house.

Laws of nature

Hardly anyone, unfortunately for coyotes, appreciates their increasingly significant role as nature's animal control officers, or understands that the "laws of nature" they enforce tend to parallel the evolving community expectations of tax-funded animal care and control agencies.

Indeed, coyotes do far more animal control than the public agencies could even begin to, mostly because there are about 250 times more coyotes on the job than there are human animal control officers. Partly because coyotes are on the beat, human animal control officers are able to spend less and less time catching and killing nuisance animals, and more time educating the public to avoid conflict with animals.

But the coyote role as nature's animal control officers goes well beyond predation on other species, such as feral cats, that may be considered problematic and come under animal control jurisdiction. Indeed, the effects of coyote predation on feral cats is often overstated. Though coyotes are the leading natural predator of feral cats, a variety of studies have found that animal control agency activity still accounts for



Coyote near Dodge City, KS

about half of all verifiable adult feral cat mortality. Roadkills account for up to 25%. Predation, by all wild predators combined, accounts for 10%-20%, depending on the habitat.

Most of the coyote contribution to controlling feral cats, like most of the work of human animal control officers these days, is not lethal to the cats. But coyote "cat control" is lethal to upward of a quarter billion small rodents per year who might otherwise become cat prey, and might thereby feed a growing cat population.

Understanding how much coyotes do to protect human interests begins with understanding what animal control agencies do, on what size budget.

Law enforcement, at all levels combined, annually costs U.S. taxpayers approximately \$220 billion. Barely 1% goes into enforcing animal care and control laws. There are approximately 90 million pet cats and 70 million pet dogs in the U.S., almost a cat per household and a dog for two households out of three. Yet cats, dogs, and all other animals under animal care and control jurisdiction together account for less law enforcement expenditure than the sum of human crime in any one of the biggest 49 U.S. cities.

Animal care and control are woefully underfunded relative to animals' needs, and always have been. But animal care and control agencies, unlike donation-supported humane societies, exist to serve human

needs. U.S. taxpayers tend to perceive that animal care and control agencies at their present levels of funding are mostly keeping animal-related health and safety problems to a tolerable minimum, addressing nuisance issues effectively enough to keep cities livable, and are otherwise remaining acceptably unobtrusive.

This, for animal control officers, requires learning discretion—much like the discretion coyotes use in not being seen.

Nationally, almost every community has dog licensing, enforced by animal care and control agencies, yet surveys continue to indicate that not more than 20% of all dogs are licensed. Almost every community has ordinances against allowing dogs and sometimes cats to run at large, has limits on how many pets may be kept, and has some basic care standards, but enforcement tends to be entirely complaint-driven.

If neighbors or other law enforcement agencies do not complain, animal care and control agencies tend to tolerate routine violations. The emphasis is upon enforcing the intent of the ordinances, to prevent specific problems, not upon enforcing every ordinance to the letter—which would be well beyond what any animal control agency has

the staff to do.

Efforts to enforce compliance to the letter of ordinances typically encounter stiff resistance. Aggressive efforts have at times resulted in entire animal control agencies being dismantled, or in animal control service contracts being turned over to other contractors.

The U.S. public likes the idea of dog licensing, especially if noncompliance is used to punish people whose dogs become problematic, but does not like the idea of animal control officers going door to door to check the licensing status of every dog who barks at a stranger.

The public likes the idea of potentially dangerous dogs being removed from communities, but not the idea of benign dogs being impounded and killed, if they go unclaimed.

The cartoon stereotype of the dogcatcher long ago became obsolete, as animal control duties expanded, but back when the "Sylvester and Tweety" animated short films and the Walt Disney classic *Lady & The Tramp* (1955) lastingly established the image of dogcatching, between 50 and 60 years ago, animal control officers were mostly still just dogcatchers, whose chief

duty was preventing bites and the risk of rabies by picking up strays. As the norms of animal keeping evolved so that fewer people allowed dogs to run at large, free-roaming cats proliferated. By 30 years ago, most U.S. animal control agencies had expanded into capturing cats, as necessity required—but then the norms of cat-keeping shifted too. Between free-roaming pet cats and feral cats, the total number of cats at large is now about the same as it was 60 years ago, just over 30 million, while about two-thirds of all pet cats now live almost entirely indoors.

With the free-roaming dog population reduced to about a tenth of what it was circa 1950, and the outdoor cat population stabilized at well below the peak of about 40 million reached circa 1990, the duties of animal control agencies are shifting again. More and more, animal control agencies are expected to address quality of life as well as public health and safety concerns. "Barking dog" calls, for example, have climbed from a low priority for most animal control agencies to a priority level that usually results in some response, if only to try to warn the dog's people against fomenting neighborhood conflict.

Effectively responding to a barking dog

(continued on page 5)

A coyote tries to avoid trouble

Captioned "An urban coyote strolls through West Hills, a suburb of Los Angeles, California, in July 2002," this photo appears in *Coyote Attacks: An Increasing Suburban Problem*, in which Robert M. Timm, Rex O. Baker, and USDA Wildlife Services employees Joe R. Bennett and Craig C. Coolahan allege that coyotes are losing their fear of humans, and are increasing threats toward humans and pets.

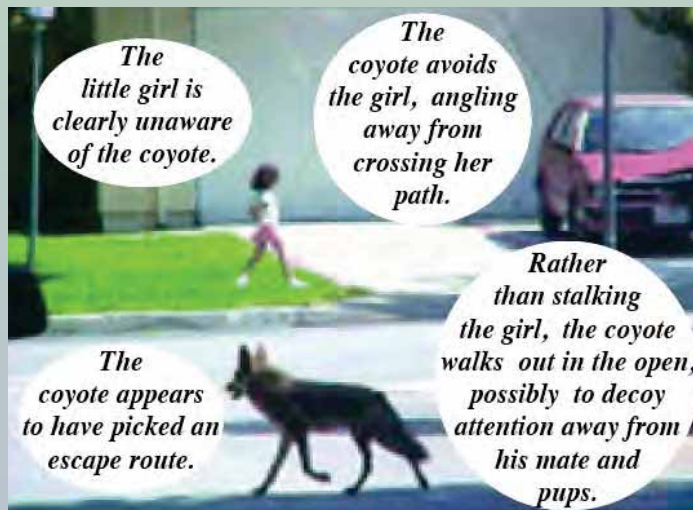
The evidence in the photo, on closer look, tells a different story. The little girl in the background appears to be completely unaware of the coyote, but rather than stalking her, the coyote is not trying to conceal himself. His tail is held low in a submissive or defensive posture. He is not running as if flushed from cover, but is walking in the apparent shadows of trees that may have been cover he has just abandoned. His left ear is cocked toward the

A reasonable surmise is that this coyote is attempting to decoy the photographer's attention away from his mate and her pups,

who may be hiding in a nearby crawl space, a favorite denning location of urban and suburban coyotes. In July, when the photo was taken, coyote pups would normally still be with their parents.

The coyote is avoiding the girl, angling as sharply as as the geography permits from intersecting with her path. His intent appears to be to go in exactly the opposite direction from the girl, perhaps ducking under the partially visible car parked behind the girl to conceal his escape.

If stalking the girl, the coyote would turn to follow her. If stalking a prey animal taking the same path as the girl, and opting against a direct attack in the open, the coyote would probably cross behind the animal and try to run around the red car parked in the driveway to strike from ambush—but the coyote shows no interest in doing any of this.



The little girl is clearly unaware of the coyote.

The coyote avoids the girl, angling away from crossing her path.

The coyote appears to have picked an escape route.

Rather than stalking the girl, the coyote walks out in the open, possibly to decoy attention away from his mate and pups.

complaint typically involves becoming involved in issues formerly left almost entirely to nonprofit humane societies, and addressed almost exclusively--if at all--through humane education. The chronic barking dog is most often a dog who is left chained outdoors in miserable conditions. Stopping the barking requires taking better care of the dog.

Because animal control officers are a branch of law enforcement, the public expects them to be able to invoke laws to reinforce whatever they recommend. Some animal control officers are reluctant to take on the added responsibility of enforcing extensions of authority into new areas, such as anti-chaining ordinances, largely to avoid the risk of being seen as obtrusive--but more and more are putting their influence behind the passage of ordinances prohibiting prolonged chaining, and adding reinforced language about housing animals properly, with adequate food and water.

Meanwhile, with far fewer dogs and cats at large to hunt wildlife and compete for food and cover, wild animals--including coyotes--have established themselves in urban and suburban habitats. Walt Disney in *A Country Coyote Goes Hollywood* (1967) presciently documented the arrival of coyote prey species, followed by coyotes, but what Disney observed was really just the beginning.

An ACO Testifies

Animal care and control agencies today are increasingly involved in responding to nuisance wildlife complaints--like Los Angeles Animal Services, whose wildlife specialist, Greg Randall, stipulates on the agency web site that "We encourage residents to employ deterrents, property alterations and the reduction of wildlife temptations like food, water and shelter, rather than use a pest control company or other methods of trapping, which ultimately is an ineffective way of dealing with the issue." Randall explicitly decries "the vilification and persecution of coyotes."

Unfortunately, many less progressive animal care and control agencies still refer wildlife calls to private exterminators. Wildlife exterminators are today's counterparts of the for-profit private contractors who did most of the dogcatching back before public animal control agencies were formed. The modus operandi of the dog thieves Horace and Jasper in the 1959 Disney animated

feature 101 Dalmatians was unfortunately all too typical of the for-profit dogcatchers then operating in much of the U.S. and Europe.

Back then, dogcatchers were typically paid by the head for the dogs they nabbed, and made additional money by selling dogs to laboratories, or by selling dog and cat pelts to the fur trade. Many for-profit dogcatchers maximized their revenue by focusing on easily captured pets--and did not do much, at least of a deliberate nature, to encourage people to keep pets at home, or to promote sterilizing pets.

Eliminating for-profit dogcatching proved to be an essential first step toward encouraging more responsible pet-keeping and reducing the numbers of animals who were impounded. Along the way, hundreds of nonprofit humane societies took animal control contracts away from for-profit dogcatchers through competitive bidding. Unfortunately, some humane societies became little more than extermination agencies themselves, leading to the trend of the past 20 years of humane societies turning animal care and control duties over to public agencies, most of them specifically created to do animal care and control as a branch of community law enforcement.

Altogether, replacing for-profit dogcatching with the concept of promoting animal care and control as a civic duty took most of the 20th century in the U.S., and is a struggle still underway in most of the world. Dogcatchers in eastern Europe historically made most of their money selling pelts. In India, only 10 years ago, many sold dog leather. For-profit dogcatchers in other parts of Asia still sell dogs for meat. Despite 20-odd years of intensive reform, for-profit dogcatchers worldwide still obstruct dog and cat sterilization, vaccination, and the passage of humane laws wherever they can.

A similar problem is increasingly evident in addressing urban wildlife issues. In this regard, the U.S. and global situations are much the same. Private exterminators, and USDA Wildlife Services, the U.S. government-funded extermination agency, often make some superficial effort to teach the public to avoid behavior that invites conflict with wild animals, but at the end of the day they are paid primarily to kill animals. USDA Wildlife Services alone kills more than 2.4 million animals per year, including more than a million birds and--on average--more than 100,000 coyotes. Private exterminators probably kill at least as many more, but no

agency formally tracks the numbers. Most of the coyotes killed by USDA Wildlife Services are killed in rural areas, where they allegedly prey on sheep and calves. Sometimes they do. But often coyotes merely scavenge or dispatch livestock felled by adverse weather or disease, and are mistakenly blamed for causing the deaths of animals who would not have survived long in any event.

The case for tolerating rural coyotes, however, is chiefly ethical and ecological. The case for tolerating urban and suburban coyotes includes undoing human mistakes. For example, coyotes and raccoons are the two major predators of nonmigratory Canada geese, chiefly through stealing eggs. Hybrids of wild Canada geese and flightless domestic geese, nonmigratory Canada geese were originally bred as hunting decoys.

After hunting migratory waterfowl with live decoys was federally banned in 1936, the decoy birds were impounded, bred, and released by the U.S. Fish & Wildlife Service and state wildlife agencies in hopes of rebuilding depleted Canada goose populations to be hunted -- but instead the nonmigratory geese demonstrated a distinct preference for habitats with short-cropped grass, such as parks, yards, airports, and ballfields, where hunting is seldom allowed. Among the few species capable of routinely raiding goose nests, coyotes help to keep the grass clean by both limiting the goose population and restricting the areas in which they can nest successfully.

Deer proliferation is an increasing problem throughout the U.S., a legacy of decades of hunter licensing policy that encouraged hunters to shoot mostly bucks, just after the breeding season. Whether a doe bears twins or a single fawn depends on how much food she finds in early pregnancy. Eliminating male competition for food in early winter brought an exponential increase in twin births, plus a skewed gender balance that would have exponentially increased the deer population even without twinning.

Meanwhile, the number of human hunters in the U.S. fell by half in 20 years. Deer discovered congenial habitat in suburbs where they cannot be safely hunted and deer/car collisions more than doubled. In some parts of the country deer-eating pumas followed the deer into town. Though pumas attack humans little more often than coyotes, they are the North American mammal species most likely to consume

human prey.

Coyotes seldom attack a grown deer, but hunt fawns and scavenge the remains of road-killed deer. Where coyotes are on patrol, even if focused on rabbits, deer tend to keep a discreet distance--at least until the coyotes move on.

Beavers, hunted close to extinction in the 19th century, became a frequent nuisance because humans so often built in flood plains before the beaver population rebounded in the late 20th century--and continue to do so. Few species are more beneficial to

other wildlife than beavers, whose dam-building creates habitat for hundreds of other species, especially birds. Beaver dams also contribute significantly to replenishing groundwater, by impounding rain and snow runoff to soak into the soil. But USDA Wildlife Services has killed between 25,000 and 32,000 "nuisance" beavers annually in recent years, and would undoubtedly kill far more if not for coyote predation and the deterrent effect of a coyote presence. Skeptics may consult the findings of Oregon State University ecologists William Ripple

and Robert Beschta, who found that within three years of the Yellowstone National Park wolf reintroduction in 1995, the Yellowstone coyote population plummeted by half, as wolves reclaimed habitat from coyotes, while the beaver population soared by 900%. Wolves rarely hunt beaver because beaver are too small to feed more than one wolf, but beaver are just the right size to satisfy a coyote family.

"Nature's Animal Control Officers will be continued in next newsletter issue"

-Reprinted with permission from Animal People.

WANT TO LEARN MORE ABOUT REHABILITATING COYOTES?

There is a great need for rehabilitators to assist with coyote rehabilitation, especially in Region 6. To learn more about the rehabilitation of coyotes, caging specifications, and MOU amendments those in Regions 5 or 6 should contact Chuck Traisi at 760-789-2324.

For all other regions, contact Nicole Carion at ncarion@dfg.ca.gov

NICOLE'S CORNER

Bat Rabies

By Nicole Carion

Wildlife Rehabilitation Coordinator /
California Department of Fish and Game

Please keep yourself and your volunteers updated on laws concerning rabies in the state of California and in your particular counties.

Specifically, all rehabilitators should know the definition of rabies "exposure." Besides someone or something knowingly being bitten or coming in contact with saliva from a bat in an open wound, scratch or mucous membrane or handling bats without a barrier, exposure includes situations where a bat is found in a room where people or animals could have been unknowingly exposed, for example, while sleeping. Part two Section A -2. of the 2004 California Compendium of Rabies Control and Preventions states:

Instances where a bat is found indoors and there is no history of bat-human contact, the likely effectiveness of rabies post-exposure prophylaxis (PEP) must be balanced against the low risk such exposures appear to present. In this setting, rabies PEP can be considered for persons who were in the same room as the bat and who might be unaware that a bite or direct contact had occurred (e.g., a sleeping person awakens to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person) and rabies cannot be ruled out by testing the bat. Rabies PEP would not be warranted for other household members.

Please always ask a person who brings a bat into your facility if the bat was found in a room where it may have coexisted with people who were sleeping, intoxicated people, a mentally disabled person, unattended small children or other animals. Because of the small size of a bat's teeth a bite can occur without knowledge (Yes! This has actually happened). In this situation, the bat exposure must be

reported to your health care provider or immediately taken to your county Public Health Department. No exceptions. If someone calls about an exposure situation have the person call the County Health Department or Animal Control directly for response.

Also, make sure to ask the appropriate questions when responding or taking in any bat for rehabilitation. It is absolutely imperative to find out the history of the bat and the location where the bat was found. The most important question to ask is "Who has been exposed to the animal?" If there is any indication that a downed bat has been handled by the public without a barrier or with an inappropriate barrier, notify your Public Health Department immediately, as well.

Bats are a very important part of our ecosystem but unfortunately they are known carriers of rabies and have specific protocols when found "down" and humans have been exposed. Rabies is fatal and human health and safety come first. It is the law.

The following information can be found at the California Public Health Website:

- Current laws & regulations regarding rabies
- Fact Sheets regarding rabies
- Surveillance and reports regarding rabies
- News and updates regarding rabies
- Rabies Compendium
- List of County Health Departments/ phone numbers

<http://www.cdph.ca.gov>

The description of rabies as a disease goes back thousands of years. Rabies has been one of the most feared diseases of all times. It is a fatal viral zoonosis and a serious public health risk, specifically in high exposure professions. Rabies has been known to occur on all continents, but is relatively rare in most of Oceania*. Rabies is caused by a rhabdovirus capable of infecting any mammal and requires contact with a fresh wound or mucous membrane, (i.e. bite wounds). Different species of animals may show distinct degrees of susceptibility. This virus is unstable in the environment and easily killed with routine cleaning and disinfection.

Two rabies cycles are distinguished: urban and wild. Most human cases are recorded in cities and linked to bites by rabid dogs. In countries where canine rabies has been controlled or eradicated, and where wild rabies exists (i.e. the United States), the number of human cases is extremely low. The United States averages 0-2 human cases per year, a drop from an average of 40-50 human cases annually in the 1930s. At present the mortality rate of rabies, once clinical signs manifest, approaches 100%, with only one confirmed non-treated human case surviving.

Rabies disease in humans has an incubation period ranging from two to eight weeks, but may last as long as eight months. The incubation period is thought to vary depending on the dose of virus injected at the bite wound, the site of the bite and the severity of the wound. Initial clinical signs begin with feelings of anxiety, headaches, malaise and sensory changes around the wound. A period of hyperesthesia, hypersalivation and extreme sensitivity to light and sound follows. The last phase ends with swallowing dysfunction, respiratory paralysis and death. The whole progression of disease usually lasts from two to six days.

The disease in animals has two distinguishable forms: furious rabies and

paralytic or dumb rabies. In the host, the virus is present in the saliva of infected animals (mostly carnivores) and enters the tissues through a bite. The virus replicates in the muscle and subcutaneous tissues at the site of penetration before invading the neurological system. The progression from nervous tissue to the brain could take anywhere from 20 days to one year. Once the virus reaches the brain, viral particles are disseminated centrifugally throughout the body to all secretions including saliva. At this point the disease is transmittable and contagious. Rabies is nearly untreatable once clinical signs manifest.

Recognition of the Stages of Clinical Signs in Animals

1. The Prodromal Stage usually starts with a change in the animal's behavior and can last up to 36 hours. Friendly animals can become shy or aggressive. Often laryngeal involvement causes spasms and change in the voice.
2. The Excitatory Stage takes place over the next two to three days, classically called the "mad dog" stage. Animals lose inhibitions and appear to lack fear. Many animals may suffer from hallucinations.
3. The Paralytic or Dumb Stage is marked by weakness and paralysis. The larynx becomes paralyzed and the animal loses the ability to swallow, thereby drooling. Death occurs in two to three days as the chest muscles become progressively paralyzed and breathing stops.

In 2007, reported rabies cases to the Centers for Disease Control and Prevention (CDC) included 7,258 animals and one human; a 5% increase in animal cases from the previous year. Of these cases, 93% occurred in wildlife species as follows: 2659 raccoons (36.6%), 1973 bats (27.2%), 1478 skunks (20.4%), 489 foxes (6.7%). Domestic species statistics showed 274 cats (3.8%), 93 dogs (1.3%) and 57 cattle (0.8%). Compared to the previous year, domestic animal rabies decreased but wildlife cases increased by 15%.

Wild rabies is a permanent danger for man and domestic animals. When wild animals are rabid, they approach human habitation more readily and attacks may occur. Rabies on the West Coast of the United States is most likely to be of the bat variant. Bat rabies is transmissible through bite wounds, but has also been known to be transmitted through the aerosolization of contaminated urine or saliva. Two researchers in Texas acquired rabies while exploring the mouth of a cave inhabited by millions of insectivorous bats, with no human-animal contact noted. Coyotes and foxes isolated in bat-proof cages at the mouth of the cave, later acquired rabies of the same variant found in the researchers, supporting airborne transmission.

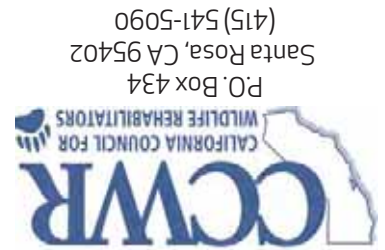
It should be noted that the United States is considered free of the canine-variant of rabies, evidence that with proper vaccination programs rabies can be eliminated. The control of rabies among wildlife reservoirs is difficult. Vaccination of free-ranging wildlife or selective populations might aid in curtailing epidemics but elimination in wild animals is not feasible at the present time.

All professionals, volunteers and others who have contact with wild mammals should protect themselves from exposure to rabies. To find out about human pre-exposure rabies vaccines, contact your personal doctor and/or your local county Department of Health to get information on obtaining the serum. Paramount would be annual medical examinations and a current vaccination history for rabies. Protective clothing, including eyewear, face masks and gloves should be worn when handling animals or animal excretions (i.e. feces, urine, and saliva). Proper restraint and protection should always be mandatory, to lessen the chance of bite wounds. Appropriate sanitation procedures must be implemented and medical treatment initiated if a bite wound occurs or an existing wound is contaminated.

Remember, rabies is easily preventable but rarely treatable.

*Oceania or Oceanica, is a collective name for the approximately 25,000 islands of the Pacific, usually excluding such nontropical areas as the Ryukyu and Aleutian islands and Japan, as well as Taiwan, Indonesia, and the Philippines.

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