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Animal Health



Today's Animal Health

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dialogue

Although two very recent reports in medical journals suggest the possible transmission of an infective agent from dogs and cats to man (MS), we know of no scientific evidence which would substantiate their observations.

The most recent article appeared in the August 22nd issue of the JAMA and was written by Dr. Seymore Jotkowitz. His study included 50 patients with multiple sclerosis and found that 46 of them (92%) had close contact with household pets prior to the onset of their illness. He also reported that a diagnosis of distemper was made for several of their dogs within several years of the onset of their illness.

The earlier report by Drs. Cook and Dowling of Newark, New Jersey (May 7, 1977) appear in the British medical journal *Lancet*. This study reported that of 29 patients who had MS, 26 had small household pets.

While these reports are interesting and of possible public health interest, there are **no** data existing today (8-24-77) which show that any identification has been made of an infective agent (viral or bacterial) which can be transmitted from dogs or cats to man, which will cause the disease known as multiple sclerosis.

Epidemiological reviews of multiple sclerosis contain few allusions to a possible association between dogs and cats and multiple sclerosis.

While there is a list of considerable magnitude of diseases which may be transmitted from animals to man, multiple sclerosis is not one of those listed.

**Harold D. Snow, D.V.M.,
Associate Professor
Leo G. Rigler Research Center
UCLA School of Medicine**

**John M. Adams, M.D., Ph.D.
Professor Emeritus
UCLA School of Medicine**

I must say I found Mr. Goodman's letter defending the raising of animals for fur strange.

It seems to me your magazine *should* speak out against the use of all animal fur for luxury items. There are too many synthetics on the market for fur-wearing to be necessary. Fur-wearing shows a cold and insensitive attitude toward our fellow creatures. Even many shoe manufacturers now use man-made materials. *Real* animal lovers **never** consider any type of life "just a crop."

Can you imagine a publication dedicated to human health advocating raising a "crop" of people for skins to be used the way the Nazis did?

It's not so far fetched.

**Helen C. Wood
Philadelphia, Pennsylvania**

Regarding the article "The Horse In Science and Medicine", the art work was great — the subject matter stank. It was supposed to be an historical overlook and it turned out to be a list of dates and facts. That's not my definition of history!

Boring! Liked your other articles, but who wrote that one? The Editor's daughter?

**Martin Kinney
Elizabeth, New Jersey**

ED: Unfortunately, the editor is childless!

Kudos for the excellent article in re "Global Animal Extinction." For once you have had presented a matter of fact, scientific exposition of a subject too often relegated to over-emotional Ladies' Societies (pardon me, Ladies, but you do get lachrymose).

The facts are potent, the article well-written, the art work super.

**Ralph Parsons
New York, N.Y.**

As a horse-trainer and riding instructor I found your article "The Horse in Science and Medicine" marvelous. I always try to teach the people who are working with the horse as much as I can about the animal's noble history.

May I have your permission to reproduce portions of the article for a little brochure I make up for my students? It is not sold nor widely disseminated. Would so much appreciate it.

**Penny O'Neil
Colorado**

ED: You have our permission, but don't give any credit to the "Editor's Daughter."

A note of appreciation for your fine magazine!

I read it with pleasure, the kids use it for research papers in school (one in eighth grade, another in high school) and we saved your wonderful covers. They are up on the wall - much more attractive than "What's-His-Name" with the tinted glasses!

Keep up the good work!

**Olivia Barnes
Keene, New Hampshire**

We are writing because we understand you have over 10,000 subscribers in the State of California alone.

Each year, in California, tens of thousands of animals die in incredible agony as victims of a device known as the "steel-jawed trap". An unsuspecting animal steps on a concealed trap, and the spring driven jaws slam shut with bone crushing, and flesh ripping force.

Thus, the animal is held until the trapper returns to deliver the death blow; or, as most often happens, the animal dies of thirst, starvation, or by being attacked and killed by another animal. Sometimes, the trapped animal takes days, and even weeks, to die.

Only one out of each four trapped animals is suitable for "pelts" for the fur industry, the other three are known as "trash animals", and are discarded by the trapper.

The trap was invented nearly 200 years ago, and remains basically unchanged today.

"CAST", Californians Against the Steel-Jawed Trap, is launching a ballot

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ask Dr. Smithcors

Q What is Spanish itch in horses?

A So-called Spanish itch is an allergic dermatitis, also termed summer itch, summer eczema, Mexican itch, and various other names, depending on the locality. It is common during summer and fall in many areas and is usually caused by an allergic reaction to the saliva of certain mosquitoes and flies. The outer layer of the skin (epidermis) becomes reddened and scaly with intense itching. Later there is inflammation of the deeper layer, hence dermatitis, which the horse may make worse by rubbing. Some horses seem to be more susceptible than others in the same pasture. Corticosteroids may alleviate the condition, provided the possibility of skin parasitism has been eliminated. Prevention involves separation of the horse from the cause, by stabling in a screened barn and use of an appropriate insecticide. If the source of flies or mosquitoes can be eliminated, so much the better.

Q My dog has glaucoma. Will marijuana help him the way I have read about it helping people?

A Smoking marijuana apparently does benefit some people with glaucoma, but I have not heard of its use in dogs — and I doubt that you would want to get involved in what at best would be a risky experiment, both for you and your dog. Dogs do eat grass, of course, but that's another matter. Your veterinarian may be able to prescribe a drug that will keep the glaucoma under control, as the same drug does in people, or surgery might be beneficial.

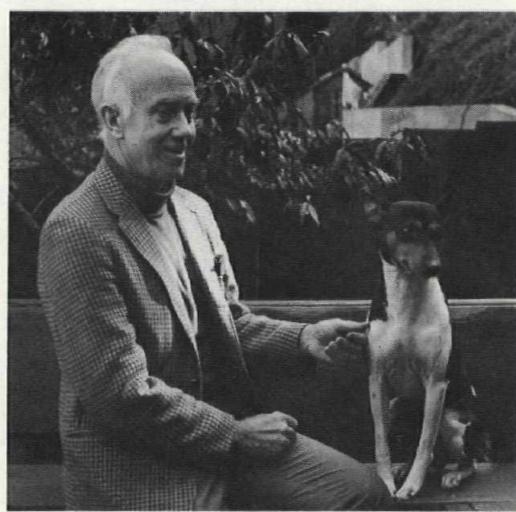
Q My dog has been paralyzed in the back legs for two months from a slipped disc, and my veterinarian says it is too late to do surgery. Will acupuncture help?

A Acupuncture seems to have helped, sometimes remarkably, in cases where surgery or other methods have been ineffective. It seems doubtful that acupuncture would completely "cure" the disc lesion, but some return of function to the legs might be possible. Since you are obviously concerned enough to ask, I would suggest you see whether your veterinarian can refer you to someone with experience in acupuncture. The National

Association for Veterinary Acupuncture at Box 5181, Fullerton, CA or the International Veterinary Acupuncture Society, at 222 Fletcher St., Thomasville, GA, may be able to assist your veterinarian in providing such treatment.

Q What exactly is the condition called bucked shins in horses, and is firing necessary in treatment? Is it humane?

A This is an inflammation of the periosteum (a fibrous membrane covering bone) over the front side of the cannon bone. The area is roughly equivalent to your shin, except that the front limb is usually involved. Bucked shins usually result from stretching or tearing of the periosteum during early training, most often from concussion in immature horses, though direct injury to the cannon region may be a factor in older animals. The fibrous tissue may become ossified and leave permanent bony enlargements which interfere with action of the extensor tendons running along the front of the cannon bone. In the early stages a month of rest is the most effective treatment. The inflammation can be relieved by poultices or



cold packs, and many veterinarians use phenylbutazone ("bute") or corticosteroids.

On the matter of firing, I am probably prejudiced but many racetrack veterinarians believe that firing after the inflammation has subsided will enhance healing — provided the horse is rested for a sufficient time. Racehorse owners are loathe to keep a horse off the track for very long, however, even though the pain produced by firing is supposed to have the side "benefit" of enforcing a period of rest. Generally speaking, veterinarians who would prefer to use gentler counterirritants and protracted rest, find that owners go elsewhere.

Q Can a dog's teeth be brushed; if so, with what?

A Yes, and there is even a meat-flavored toothpaste concocted especially for dogs! Few owners realize that the teeth of small dogs in particular need regular attention to preserve them and minimize mouth odors. You can use a toothbrush and ordinary toothpaste once or twice a week, or a gauze pad moistened with water works equally

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PROPER CARE OF PETS FOR AIR TRAVEL

Dogs, cats and some other warm-blooded animals are now protected by Federal law when they are shipped on airlines and other interstate public carriers. The new regulations, required under the 1976 amendments to the Animal Welfare Act, are designed to reduce the stress and suffering caused by the rigors of long-distance shipments.

If you are shipping a dog or cat or other pet by air, you must comply with some of these new rules. Here are the ones affecting your personal pet:

AGE: Dogs and cats must be at least 8 weeks old and must have been weaned for at least 5 days.

CAGE: Cages or other shipping containers must meet stringent standards for size, ventilation, strength, sanitation, and handling. They must be:

- Large enough for the animal to stand up, turn around, and lie down with normal posture and body movements;
- Strong enough to withstand shipping, free of interior protrusions that could cause injury,

and with adequate access to the animal;

- Constructed with a solid, leak-proof bottom, and provided with litter or absorbent material unless a wire or other non-solid floor separates the animal from the bottom;
- Ventilated adequately on at least two opposite sides so that the air flows through both the upper and lower parts of the walls. There must be projecting rims or knobs on the outside to keep ventilation from being blocked by adjacent cargo.
- Fitted with handles or grips for proper handling, and marked "LIVE ANIMALS", with arrows indicating the upright position.

SCHEDULING: —Dogs and cats must not be brought to the carrier for shipping more than 4 hours before the time of departure (6 hours is permitted if shipping arrangements have been made in advance).

FOOD & WATER FOR LONG TRIPS:

If puppies or kittens less than 16 weeks of age will be in transit more than 12 hours, you must provide food and water along with written feeding instructions. Older animals must have food at least every 24 hours and water at least every 12 hours.

HEALTH CERTIFICATE: The new regulations require health certificates only for shipments by dealers, exhibitors, laboratories and other agencies or companies licensed under the Animal Welfare Act — **But**, airlines and state animal health officials may require health certificates under other applicable rules and regulations. So, it's a good idea to have a licensed veterinarian examine your pet within 10 days prior to shipment, and give you a certificate stating that the animal is in good health.

Copies of the new Federal Regulations covering animal shipments may be obtained by writing: Animal Care, APHIS, U.S. Department of Agriculture, Hyattsville, Md. 20782. The telephone number is 301-436-8271.

Down Under— Australian Animal



1. My partner, David Ball, operating on the forelimb of a horse



2. "Curiosity" in her substitute pouch. She hops in and out with ease



3. I had to use the telephoto lens to get this picture of two Grey Kangaroos basking in the sun.

By Bruce Cartmill-D.V.M.

Australia is a continent slightly larger in area than the U.S.A. It has a population of about 14 million which is mainly concentrated in a relatively small area in the south and along the east coast, leaving a very sparsely populated centre. The great variation in climate results in a topography ranging from desert areas to lush pasture land and from tropical forests to mountain ranges which are snowcapped in winter. The type of work available to the veterinarian in Australia is consequently widely diversified.

A veterinarian in Alice Springs in Central Australia, besides caring for the local dog and cat population, would fly several hundred miles to treat animals on a cattle station ('station' being our Australian term for 'ranch'). This work would usually be conducted on a herd basis and would often be Government subsidized. In the concentrated dairying areas of South Eastern Australia, a veterinarian would spend most of his working days driving from farm to farm, receiving his calls by two-way radio based at a central clinic. At the other extreme the city veterinarian treats the usual array of domestic animals at his surgery.

Most veterinarians in private practice in Australia are in Small Animal Practice, and the type of work conducted here is very similar to that of a veterinarian

in practice in the U.S.A. I am in practice in Wollongong, on the east coast of Australia, 50 miles south of Sydney. This is an industrial city, being the main centre for the giant steelworks complex of B.H.P. (Broken Hill Pty, Ltd.). Although depressed by the recent economic recession, it is a rapidly developing metropolis. Wollongong has a population of 200,000 people.

As it extends in a narrow strip along the coast between mountains and sea, rural areas and undeveloped bushland are within a few miles of the main centre.

I joined my practice nine months ago. It is a three man practice operating from three centres which form a rough triangle with about 5 miles between each centre. The practice started eight years ago with one veterinary surgeon practicing from one centre. Our two more recently developed centres are in the two most rapidly growing residential areas of Wollongong.

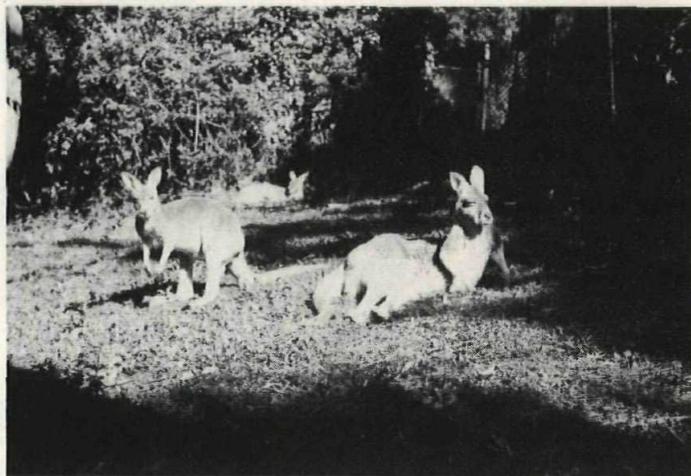
At present we are planning for a new hospital at one of these centres. It will be situated on the main highway passing through the city and will be the first of its type in Wollongong. Veterinary hospitals have only been accredited in Australia for the last three years and eight hospitals have now received this accreditation. Hospitals are assessed in a similar manner to the assessment of veterinary hospitals in the U.S.A. After months of planning and liaising with architects and council authorities our building will commence in a few weeks and will be completed in approximately six months. We

Doctor

Photos by Dr. Cartmill



4. This is a Wallaroo who has chronic sinusitis. He tends to become worse each winter. I had to take this with a telephoto lens since he wouldn't let me near him.



5. Normally the different species of kangaroo don't mingle with each other but in these pictures I caught two Grey Kangaroos (in the foreground) with a Red Kangaroo.

expect this small animal hospital to expand rapidly.

Our other developing centre will eventually have a future as a major equine practice. The original clinic will remain a steady one-man concern. Maintaining three centres is not as efficient as operating from one main hospital. Soon, with new development at two of these centres we hope all will be able to function independently with a minimum of staff movement between the centres.

Eighty percent of our work involves small animals with the remaining twenty percent large animal work being mainly with horses. Pony clubs are very popular and are proving an increasing interest and activity for the local population. There is a race course in the area and horse studs are within close proximity to the city. Greyhound racing is also developing with regular race meetings held three to four times a week. There is a major dairying area south of Wollongong, but we see very few cattle in our immediate environs.

Most of our working day is well occupied in the surgery with consultations and treatment of small animals. The majority of our patients are dogs and cats, with a small proportion of a wide assortment of other pets e.g. rabbits, guinea pigs, cockatoos, budgerigars, canaries and even an occasional fish! Treatment in consultation may involve routine vaccinations, treatment of various infections, skin diseases or minor injuries. Other animals are admitted for further treatment, x-rays

or for observation. This inpatient treatment may be conservative, using drugs, e.g. for shock after severe injury, diabetes etc. Common surgical cases include de-sexing, orthopaedic surgery and abdominal catastrophies. Home visits are made only in special circumstances.

Large animal treatment (e.g. horses) is carried out on the farm. Apart from the University Veterinary Hospitals there is only one hospital that I know of in Australia which offers inpatient treatment for large animals.

A small but very interesting section of our work deals with native animals. Most Australian native animals are protected and are not allowed to be kept in captivity. They are shy creatures and usually avoid contact with people if possible. With a large area of bushland adjoining much of suburban Wollongong, it seems inevitable that some of these animals fall victim to our way of life — with roads and cars, dogs and people.

Occasionally we are asked to treat a native animal which has been injured or found sick. It is the responsibility of the veterinarian to treat this animal, and within 48 hours if possible to place this animal in an establishment where it can receive proper care and attention, (e.g. zoo or wildlife sanctuary). If it is obvious that the native animal will not be able to return to its natural environment, euthanasia is recommended. These animals are particularly difficult to treat

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HOW TO OWN A HORSE

by L.M. Scallan,
*Former Director of the
Delaware Equine Center, an inter-
nationally known veterinary hospital
located in Cochranville, PA, and
devoted to the care of the
equine family.*

Photos by D.M. Diem

Yes, you read the horse magazines. You've been riding for some time. You've even picked up some terminology along the way and no longer feel ignorant about horses. But buy one?

Well, for one thing, you're not sure you have enough room for a horse. Second, how much money is involved in caring for your own pleasure animal? And, third, where can you find answers to these and other ques-

tions without showing signs of your educational "gaps"? After all, you don't want to be victimized by an unscrupulous dealer and some do exist.

If you find yourself in this situation, it is wise to do a little research. Since most people buy horse magazines because they are involved in the equine world, this is the best place to learn a few basics.

There are three areas of considera-

tion which bear on the decision of whether or not to purchase any member of the equine family:

- 1) How to purchase
- 2) Care and feeding
- 3) Health maintenance (Veterinary Services)

How to Purchase

This first consideration depends upon what your pocketbook will bear

and also what is suitable for you. A horse that is trained will cost more than one that is "green-broke" (halter broken only), *but bear in mind that an unskilled rider does not belong on an untrained horse.* A good rule of thumb to remember: the less experienced the rider, the more experienced the horse.

If you wish to purchase a well-trained horse who has already appeared in horse shows, can jump well, pulls a wagon, or other skills, be prepared to spend accordingly. An animal can be priced from \$50 for a grade horse (unknown parentage turned loose in a field) to thousands of dollars for a super show winner. A good compromise price of \$600 to \$1200 would be realistic. Unless you become involved with Thoroughbred racing, this is more than enough to pay for your first horse. Your horse will then require room and feed, and this brings us to our second consideration.

satisfied with a lean-to. In very warm climates, you may wish to keep the animal indoors during the heat of the day and allow him to do his grazing at night.

As far as feeding is concerned, the nutritional requirements of horses are complex and many volumes have been written on the subject. An "easy keeper" may eat six quarts of grain per day. A racehorse in serious training can consume sixteen quarts of feed per day! For the neophyte, however, it is more important to concentrate upon the quality of the feed and the type of mixture rather than the amount your horse consumes. The horse has a delicate digestive system and he does not easily tolerate sudden changes in the diet. Find out from the potential seller exactly what your horse's feeding requirements are at present.

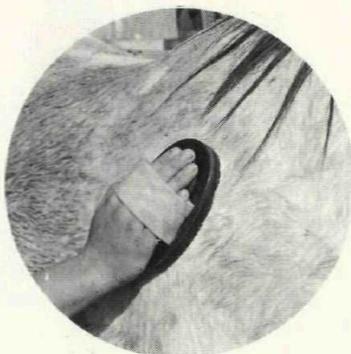
Winter feeding can be a problem when pasture is brown and dried. Good timothy or alfalfa hay is expen-

another requirement of his diet.

Cost of feeding, as stated earlier, can be computed according to the individual eating habits of your animal. However, it would be wise to check with several local grain dealers in order to estimate the best prices for the grains you want. Remember, the intelligent person asks questions.

Under care and feeding, include grooming — an essential part of keeping your horse in condition. Of course it is easy to "knock off" a pony in fifteen minutes, but it takes time to *curry out* the dirt from a large horse. If you have ever stopped to admire a freshly groomed horse, you know it is well worth the effort. Think in such terms as owners of poodles, afghan hounds, old english sheepdogs, versus owners of beagles or short-haired dachschunds. It is all a matter of personal preference, not ease.

While you are grooming the horse, you can be looking for any signs of



Care and Feeding

A horse needs an acre or more of good grazing land. Ideally, he should have more. He does not need an elaborate barn and stall, but he does need a minimum of a shed or lean-to of some sort to keep him out of bad weather and free from drafts. Later on you can find stall accommodations if you need them. Unless you purchase an animal who has spent his life in more elaborate quarters or you live in an area of severe weather conditions, this should suffice.

Your horse will grow a thick coat of winter fur which snow and rain do not ordinarily penetrate, but wind and dampness are his enemies. They will make him uncomfortable if he has no way of protecting himself. If you live where the weather is mild all year round, your horse will be permanently

sive or non-existent. In some areas of the country, April and May prices will rise to \$200 per ton or more. Before you purchase any animal, be sure you have a good source of supply for feed and hay. Figure your feeding costs according to the individual habits of your animal. Ask the present owner where he purchases his feed. If you will be living in the same area, you may be able to purchase from the same dealer. Or perhaps he can recommend a reliable supplier in your area.

It should be noted that your animal will need free choice of water. A stream or pond is perfect. A watering trough is necessary if there is no natural water available in his field. Another item on your list should be a salt block. *Salt blocks are very inexpensive and well worth it.* They fulfill a nutritional need and also return the horse to his water supply which fills

kick marks, scratches or cuts. This is a good time each day to check for problems which arose while he was out grazing with other animals. Pay particular attention to the hooves. *Hooves should be picked out every day and checked for cracks in the hoof walls, stones, and matter material packed inside.*

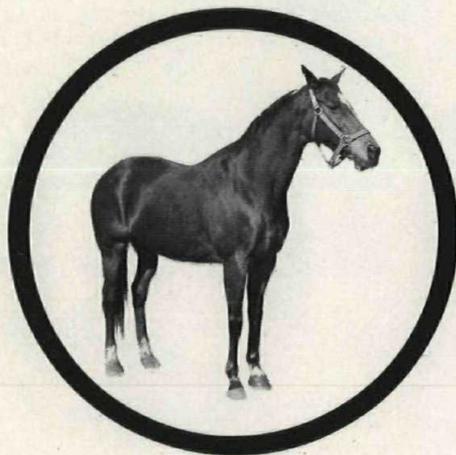
Ask the seller who does his blacksmithing; the same individual may continue to do the horse for you. In any case, your horse will need trimming every four to six weeks. (This is similar to you manicuring your nails, but it is essential for the horse to keep his hooves in balance.) *A horse's feet are his most important asset.* Without good feet he cannot walk, ride, drive, or perform any of the functions which man expects of him. If your animal walks "ouchy" and you know that he

continued on next page

HOW TO OWN A HORSE

grounds. So do boarding stables, veterinary hospitals, race tracks, any places where horses congregate. Call the Veterinary Services Division of your State Department of Agriculture for information on Coggins requirements in your area.

In most areas, your animal also needs yearly boosters for Eastern/Western Equine Encephalitis; Venezuelan Encephalomyelitis (if you live in the southwestern United States), a one time injection; and, in some areas, Rhinopneumonitis, (now they have a one time a year vaccine) for prevention of this viral disease which can infect all horses and sometimes cause abortion in mares. You will also need an Influenza vaccination. Yes, horses can get the flu too. Remember that we are discussing



has been properly trimmed and does not have any sign of an abnormal condition (i.e. thrush, abscess, hoof crack), discuss the possibility of shoeing. Shoes should be put on by a reputable blacksmith and they may be necessary protection for your particular horse. If a corrective problem arises, be sure that the blacksmith discusses the problem with your veterinarian. Most smiths will be more than happy to cooperate.

Health Maintenance/Veterinary Services

The third and final consideration in owning a horse is the state of his health and the cost of veterinary services to maintain good health. Your horse needs vaccines in much the same way that the family dog is in-

noculated against distemper, leptospirosis, and rabies. Preventive medicine is costly but when you consider the alternative, it is money well spent. Knowing the costs of human medication, you certainly don't need bills for medicating a sick horse!

If you live in one of the states which require a Coggins Test, you will have to have this done. Ask the seller if the animal has a current negative Coggins *before you buy*. If he does not, have it done right away. This is a blood test to determine whether your horse is a carrier of Equine Infectious Anemia (EIA). Since there is no present cure for this disease, controls have been set by the Federal Government to prevent its spread among the equine population. If you intend to show your horse, you will certainly need this test. Most shows require a negative Coggins certificate before allowing a horse on their

preventive measures. Some of these diseases are life threatening; *if you value your horse there is no question that these precautions must be taken.*

Horses are also susceptible to parasites. Unlike the dog, a horse is rarely ever free of parasitic infection. For this reason a good deworming program should be adhered to carefully. Every three months is minimal; every two months is even better.

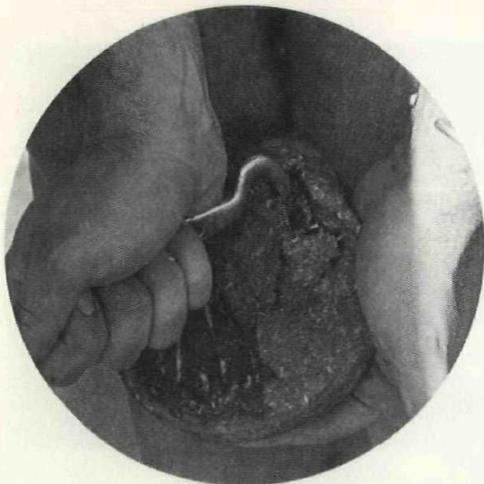
Most parasitic life cycles will have been interfered with at the schedule suggested above. Before winter, there should be a specific deworming for "bots"; in late spring your horse should be dewormed before turning out to pasture for the warm weather. At least once each year, your veterinarian should deworm your animal with a stomach tube. This is a little bit of extra assurance — remember the horse has a most com-

plicated digestive system.

If you buy a wormer at an agricultural center or feed store, be sure to look for dichlorvos listed as an active ingredient. This will insure decimation of the bot population and many other parasites as well. It should be used at least once during the year, preferably before winter, especially if you cannot get a veterinarian to come out to deworm the horse using a stomach tube.

Summing It Up

By now you realize that owning a horse can be expensive. Only you can decide whether or not it fits your budget and your temperament. The one item we cannot measure in dollars



and cents is the potential companionship which can develop between you and your animal. Nor is there a price tag comparable to your first show ribbon or the pleasure in executing a difficult jump with style.

The decision to buy, and what to buy, is yours. This article would urge you to take care of the animal you do buy. If you meet your obligation willingly, your horse will thank you many times over.

You can expect these expenses during your new horse's first year. (Prices quoted are current in the Northeastern United States.)

TACK: Used saddles can be purchased at a fraction of the cost of new. Check newspaper ads; try the local riding stable; look in the classifieds of horse magazines. A good used bridle and bit should be available for

\$20-\$25. Used saddles in good condition cost \$60-\$100. A nylon halter (new) \$4-\$6. A leather halter, \$20 up depending on quality.

GROOMING AIDS: Curry comb, \$2; hoof pick, \$1; mane comb, \$.50. A good brush costs \$3-\$5; rope lead shank, \$3; saddle soap about \$2 per can.

VETERINARY NEEDS: Check your veterinarian's recommendations. I keep tranquilizer for emergencies; topical ointment, spray-on bandage for cuts and scratches; gauze pads and bandages for leg wounds; packaged wormer. If your horse is hard to handle, you may want a twitch. Total cost, including a locked cabinet should not exceed \$100.



FEEDING SUPPLIES: A feed bucket, \$5; water bucket (in stall), \$4; a water trough if needed in the field, \$60.

BOARDING STABLE: Good ones cost from \$70 month for grazing only, to \$200 and up. Cost is directly proportionate to care involved. Try doing some of these chores yourself; it's cheaper and more satisfying for you and your horse.

RIDING LESSONS: Suggested for beginners; group lessons about \$9 per 1/2 hr.

FENCING: Check your local supplier. Whatever you choose, **DO NOT use barbed wire.** I don't care what your neighbors do; it's dangerous. This is a horse, not a cow, and barbed wire is one hazard you should remove from his environment.

We Goofed!



Somehow in the rush of things your editor goofed!

We should have provided you with gift subscription forms in the last issue (September-October) but we didn't. And frankly, we are afraid with the rush the post office must handle at this time of year your gift notice might not get to the recipient in time if we send it out. To avoid having that happen we're putting the gift cards right in this issue along with the order cards...that way you'll be able to get them mailed in plenty of time.

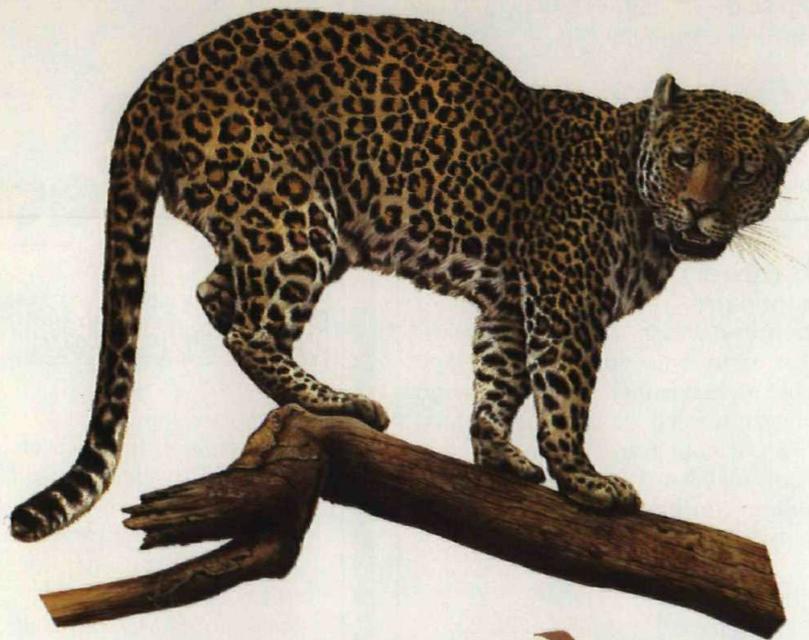
Your gift subscriptions will start with the January-February issue.

Just fill out the order card and the gift card. Send the order cards along with your remittance to us and send the gift card directly to the recipient.

Best wishes to all of you from all of us.

SEE INSERT

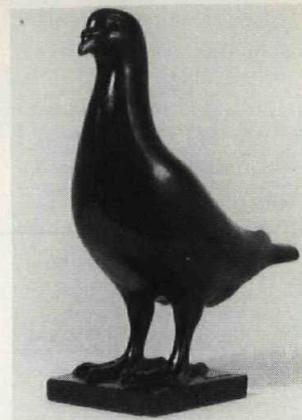




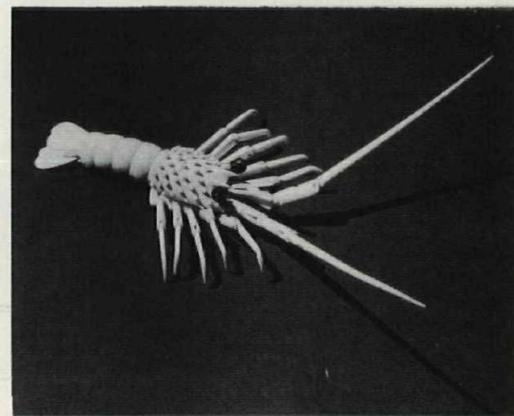
BEAUTY of the BEAST

THE ANIMAL IN ART

Natural History Museum of Los Angeles County
in recognition of the conservation efforts of the World Wildlife Fund
NOVEMBER 16, 1978 to FEBRUARY 19, 1979



Subject: Carrier Pigeon
(Pigeon Voyageur)
Artist: Francois Pompon
Media: Bronze
Time: c. 1926
Hirshhorn Museum and Sculpture Garden,
Smithsonian Institution



Subject: Articulated
Spring Lobster
Author: Unknown
Media: Ivory
Time: c. 1900's
Natural History Museum
of Los Angeles County

This fall, over 30 museums in 10 countries will begin mounting special exhibitions of THE ANIMAL IN ART. The exhibits, all different, will be on view at many of the world's most prestigious museums including the Prado (Madrid), British Museum (London), Smithsonian Institution (Washington, D.C.), The Topkapi (Istanbul) and Natural History Museum (Los Angeles), featuring objects from their own and borrowed collections. An exhibition focusing on THE ANIMAL IN ART **has never been done before on an international scale.**

The main objective of THE ANIMAL IN ART is to highlight the plight of all threatened and endangered species of animals and plants which the World Wildlife Fund is dedicated to saving.

Organized by Fleur Cowles, an international trustee of

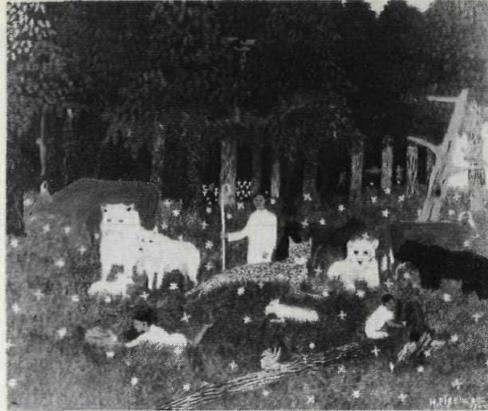
the World Wildlife Fund, each exhibit will explore the various qualities and historic perceptions of animals. This began with man's first impression (in caves) of the animals around him, followed by totemic objects, frescoes, paintings, sculpture, jewelry, books and other stunning objets d'art. The exhibits will also show the mutual importance of art and the environment for man's cultural and physical well-being.

One of the world's most distinguished art historians, Lord Kenneth Clark (internationally famous for his "Civilization" series on television), accepted Fleur Cowles' invitation to collaborate with THE ANIMAL IN ART by writing a book on the subject.

Entitled "Animals and Men", this beautifully illustrated book explores the relationship of animals and men from



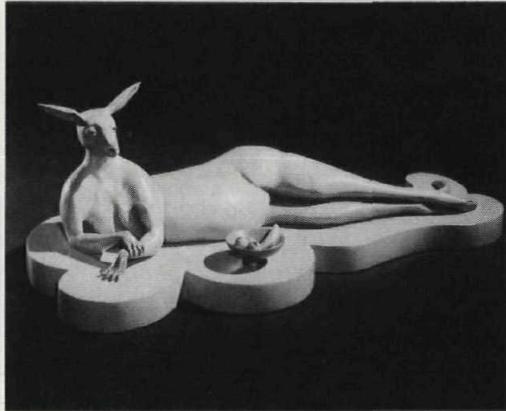
Subject: Dolphin
 Artist: Gaston Lachaise
 Media: Bronze
 Time: c. 1924
 Hirshhorn Museum and
 Sculpture Garden,
 Smithsonian Institution



Subject: Holy Mountain III
 Artist: Horace Pippin
 Media: Oil on canvas, 25" x 30"
 Time: c. 1945
 Hirshhorn Museum and
 Sculpture Garden,
 Smithsonian Institution



Subject: Shoebill Stork
 Artist: Sylvia Massey
 Media: Polyester Resin
 Time: Contemporary
 Natural History Museum
 of Los Angeles County



"Odalisque"
 Author: Silvia Massey
 Media: Polyester Resin
 Time: Contemporary
 Natural History Museum
 of Los Angeles County



Subject: Horse
 Artist: Elie Nadelman
 Media: Bronze
 Time: c. 1914
 Hirshhorn Museum and Sculpture Garden,
 Smithsonian Institution

prehistory to the present day. Its publication will correspond with the first ANIMAL IN ART exhibits in London, Zurich, Washington, D.C. and Los Angeles. Proceeds from the sale of Lord Clark's book, to be published in several languages, will benefit World Wildlife Fund's conservation efforts around the world.

Entitled "Beauty of the Beast — The Animal in Art", the exhibit in the Natural History Museum of Los Angeles County, opening Nov. 14, 1977, will focus on animals as depicted in ethnic art (including Pre-Columbian, African and Egyptian), illustrative books, animated cartoons, coins/medals, china/pottery and mythology. Works from the collections of the Getty Museum, UCLA Museum of Cultural History and Disney Studios are included.

What emerges from this exhibition is that an interest in

animals has always held an important place in human thought, and that this interest is correspondingly present in the art of all people at all times, possibly less so now than in earlier ages when life was closer to nature.

A beautiful poster of a leopard will be available in recognition of THE ANIMAL IN ART exhibition. *Today's Animal Health* has used this exquisite watercolor by Geoff Roberts-Coe as its cover for this issue.

World Wildlife Fund is a private, nonprofit publicly supported international organization which has financed over \$30 million for scientific research and conservation projects to preserve endangered species and natural areas. The International Union for Conservation of Nature and Natural Resources (IUCN) serves as scientific advisor to WWF. The Fund is represented by 26 independent national affiliates, one of them in the United States.

Of the five senses (vision, hearing, tasting, smelling, and feeling), hearing seems to be one of the major and most essential to animals and man. Hearing brings to the body a tremendous amount of information about the world in which we live. With reduced vision in some animals such as the dog, this sense becomes even more important. In other animals such as the bat or porpoise with little or no sight, sound is used to obtain food and to navigate. The bat and porpoise use a type of sonar in which a sound is bounced off of an object and picked up by the ears. The study of animal hearing and sound has led to the development of sonar to guide ships; sound producing devices to drive away rats and mice; medical instruments for location of foreign bodies in the eye; and sound stimulators for easing muscle pain.

Man's awareness of the power, beauty and mystery of sound is not new. We find reference to sound in the Bible, literature and mythology. In the Bible, you remember it was the trumpet blast which brought down the walls of Jericho. In poetry and literature, we find many references to the beauty of sound around us. In Greek mythology, the music of Orpheus had the power to calm animals and bewitch trees.

No matter whether it is from Joshua's trumpet or Orpheus' lyre, sound is energy in waves. The length of the sound waves, and the number of waves per second determined the pitch or frequency of the sound. A sound with many waves or vibrations per second is high pitched, while a sound with a few vibrations per second is low pitched. Sound can be pure as with one tone, complex in speech with many different tones or noise with no pattern. The energy generated by sound is very important in a technological society such as the one in which we live. High pitched sounds can cause the destruction of living tissue! High levels can cause pain,

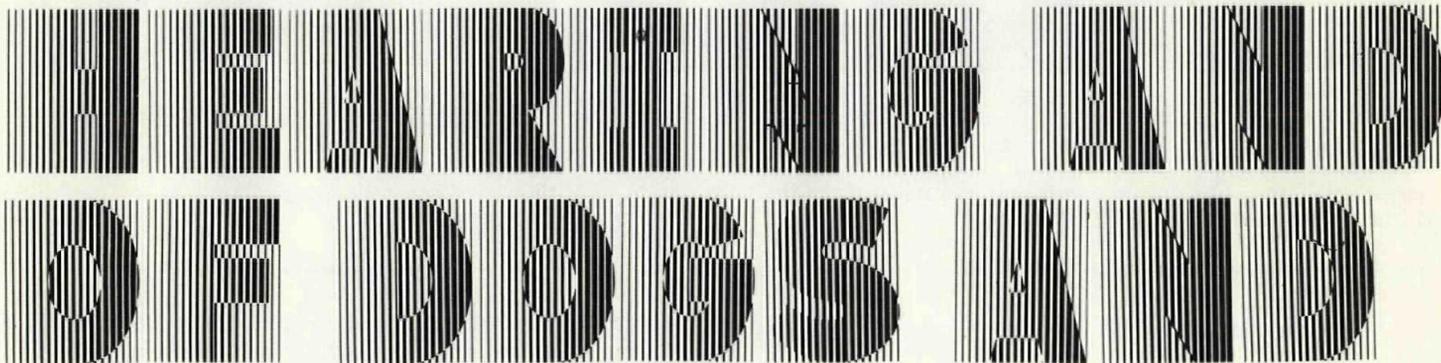
deafness, hemorrhages, nervousness, mental illness, convulsions and even death! These and other physical effects of sound on man and animals are just being fully realized in our study of noise and noise pollution. The effects of noise and high energy sound is especially devastating to animals with acute senses of hearing. Modern sound producing devices have been used to drive rats from food-packing plants. A sound is produced that is just above the hearing range of man but can be easily heard by the rats causing pain and discomfort.

Dogs and cats have extremely sensitive ears. They can hear sounds that man is not able to hear. They can detect a sound at a greater distance than man. They can locate the source of sound better than man can. Many can discriminate between sound notes better than man.

A physicist, Sir Francis Galton, developed the first "Silent Whistle" that produced a sound so high pitched that it could not be heard by man. This whistle had a definite effect on animals. It caused cattle to stampede and horses to run in terror. In dogs and cats, the whistle caused discomfort or an alarm reaction. A descendant of this instrument can be found in pet stores today. The experiment-determined hearing ranges of the dog, cat, and man are:

- Man — 20 to 20,000 cycles per second
- Cat — 35 to 50,000 cycles per second
- Dog — 15 to 35,000 cycles per second

Sounds above the range of human-hearing (20,000 cycles per second) are called *ultrasonic*. It seems that many sounds in nature are *ultrasonic*. What our world would be like if we could hear as well as the domestic cat is only speculation. Furthermore the overpowering



by W.R. Rose D.V.M.

noises of civilization seem to dull the hearing powers that we do have. Noise deafness and hearing loss is prevalent to an alarming extent in city dwellers. Stereos, factory noises, traffic noises and a myriad of other sounds have reduced human hearing far below the 20,000 cycles per second listed for man. As a corollary, the effects of the noise of civilization on the hearing of the dog and cat might be a dulling of auditory acuity.

Why has nature provided dogs and cats with such sensitive powers of hearing? Both animals started out in evolutionary history as predators. Using the cat as an example, a good sense of hearing is invaluable in catching mice. Biologists tells us that much of the communication between mice is chirping and twittering above the range of human hearing in the *ultrasonic* ranges. So the ability to hear these noises would enable the cat to locate and catch the mouse. In any hunting foray, the predator has an advantageous weapon if he can locate his prey by sound.

A second advantage of good hearing is the avoidance of danger. Any animal that can hear an adversary coming has a better chance of survival. Even our domestic pets, the dog and cat, must face dangers and adversaries of which we are not always cognizant, and their acute sense of hearing is vital to their safety.

A third need for a keen sense of hearing is that of communication. If we take the time to listen to the various sounds produced by the dog and cat we realize that sounds are used as a form of communication. The mating encounters of cats are most certainly initiated by vocalization. The warning growls against strangers trespassing are used to establish territory. Some of the common sounds produced by cats and dogs are listed below. Inflections and variations of these sounds may further aid in meaningful communication by dogs and cats.

Sound emissions produced by dogs and cats:

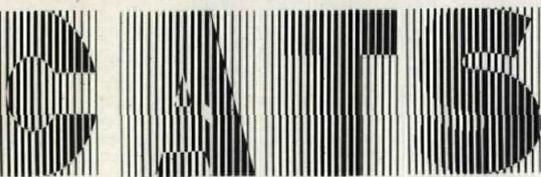
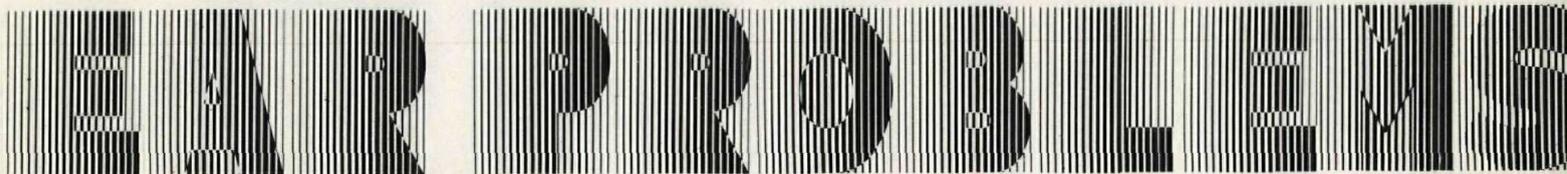
CAT	Mews	DOG	Growls
	Growls		Yelps
	Hisses		Barks
	Screams		Howls
	Spits		Groans
	Purrs		Pants
	Caterwauls		Whines

With domestication comes another important aspect of communication — that is between animals and man. The domestic animal must learn human commands to fit into modern society. In working dogs such as the bird dogs, coon hounds, deer dogs, squirrel dogs, seeing-eye dogs, hearing and interpretation of human commands is essential.

Many dogs have been bred by man to develop obedience and to increase the responsiveness to human language. Cats are also, by repetition of situations, trained to respond to human language. Responsiveness to human commands is often altered by hearing impairment or ear disease.

These articles (there will be eight) will be an effort to help you, the pet owner and animal lover, recognize ear problems and handle them expeditiously. The field of veterinary medicine has made many advances in the diagnosis and treatment of ear disease, and I hope to pass on to you helpful knowledge which will, perhaps, save your pet from needless suffering and hearing loss.

The next article will be on the hearing mechanism of dogs and cats.



PART 1- Sound

CATS AND LEU

King



Photo Credit: John R. Mackey

"King" has the highly esteemed job of being a blood donor for anemic cats. So far this year he has donated a little over 1400 cc of blood to needy cats. He weighs about 16½ pounds and certainly earns his keep.

Puddy

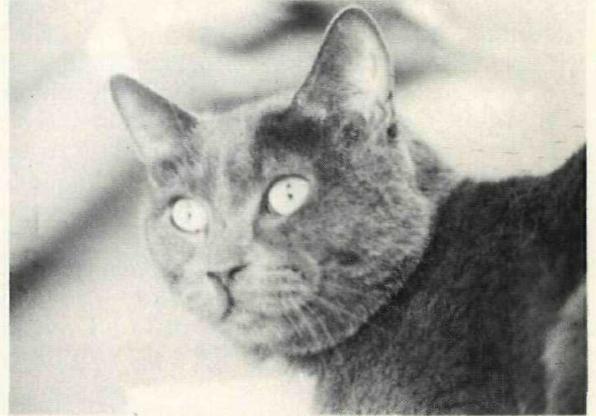


Photo Credit: John R. Mackey

"Puddy" was a FeLV positive asymptomatic cat who completed the immunostimulation study eight months ago. His last blood test showed that he converted from positive to negative. The owners, Mr. and Mrs. Neff are quite happy.



This is the concluding article in the series of three dealing with the information and mis-information about cats and leukemia. I will summarize certain facts I feel are important.

Once an individual has discovered that the feline leukemia virus exists in a multiple cat household, such as a cattery, the solution is to separate the infected cats from those who are not infected.

Many cats who are virus positive are healthy and show no signs of illness. These cats can successfully be placed in single cat households in which the owners are well informed. The remaining negative cats should be retested at 3-6 month intervals.

There are six categories of healthy cats according to their susceptibility or resistance to the feline leukemia virus. Four categories of felines will show negative to the feline leukemia virus. Two of these classes may have neutralizing antibodies and two classes may not. The remaining two categories will be positive on the test. One of these types will develop actual illness, leukemia or lymph type tumors. The other cats in this category are carriers.

Those cats which are symptomatic (meaning they have some signs of a FeLV related disease) can be helped through their time of illness by support-

tive care. Often this illness will appear to be a crisis such as an acute anemia, depression or fever of unknown origin. However, with good medical help many cats can survive and be helped. The supportive care may be in the following terms:

1. A transfusion for those who are anemic.
2. Chemotherapy for those who actually show malignant cancer cells in their bloodstream, chest or lymph nodes.
3. Vitamins, antibiotics and steroids on a pulsed basis for those who are poor doers. Pulsing a patient with treatment means to be on medication one month, off two weeks, on one month, off two weeks.
4. Immunostimulation for the healthy positive cat.

It is important that the person who owns an infected cat be properly informed as to the prognosis and survival rate which his particular cat may have. Based on the symptoms and condition the cat presents, the veterinarian can help the owner with a judgment as to whether the animal can survive one crisis after another. Many cats will simply be susceptible to infections and fevers. Others will get ter-

Culo

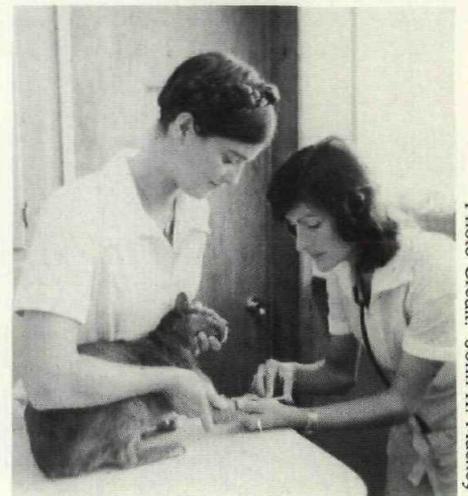


Photo Credit: John R. Mackey

Pictured above is Dr. Alice Villalobos delivering I.V. chemotherapy to "Culo." Christina Hutson, veterinary student, is assisting. "Culo" is in his eighth month of chemo-immunotherapy for lymphosarcoma. His owner, Margaret Currie, was referred to Dr. Villalobos by Dr. Rosskoph after he diagnosed "Culo's" condition by lymph node biopsy.

minally ill without any response to medication.

There is a new test for a FeLV related disease called FIP which is short for feline infectious peritonitis. Much information has become available about this disease, and very recently a test has been successfully

LEUKEMIA PART III

by Alice E. Villalobos, D.V.M.

Smokey



Photo Credit: Gail R. Black (Owner)

"Smokey" Black is a two year old cat who had generalized lymph node enlargement and was FeLV positive. The owners were advised to put "Smokey" to sleep in February of 1976. A biopsy proved that "Smokey" had a fungus infection (Actinomyces) in his lymph nodes. "Smokey" was treated for this problem and is a healthy happy cat today.

Kelly

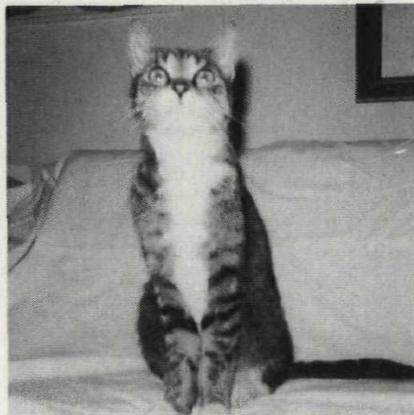
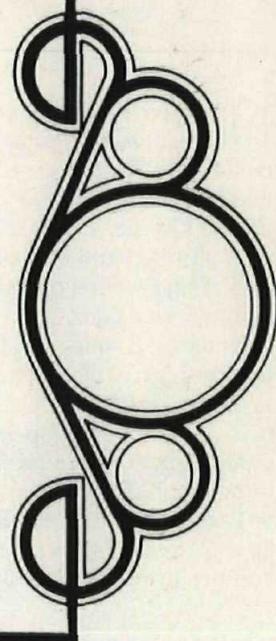


Photo Credit: Pat Hamrick (Owner)

"Kelly" is a ten year old cat who is FeLV positive and is on therapy for lymphocytic leukemia. She is in her third month of therapy.



developed which can identify this disease process in cats.

It seems that from experience, those cats which have the chest (or anterior mediastinal) form of lymphoma do better. Up to 75% of these cats will go into remission and survive nine months to one year with chemotherapy, and even longer if they are put on immunotherapy. If there is a fluid buildup in the chest which continues to fill the chest cavity, then the chances for survival are poor. Those cats which have tumors in the intestines do poorly. However the cats with general lymph node enlargement seem to do fairly well with chemotherapy and the use of immunotherapy once the patient is in remission through the use of anti-cancer drugs or through the use of hyperimmune serum. The technique of using this special serum is new and very promising for those cats who cannot tolerate the use of anti-cancer drugs. One study quotes the use of 100 milliliters of whole blood transfused on a daily basis to cure the disease with the antibody in the serum. This is a monumental project for a veterinary practice and has only been done on a research basis. The serum is hard to come by, and this technique needs more investigation.

There are of course other types of

leukemia since leukemia is a general name for cancer of the white blood cells. However, the feline leukemia virus has been associated with the induction of other kinds of disorders of the white blood cell series. Cats sick with these other types, can respond to treatment using anti-cancer drugs. A proper diagnosis as to the very type of problem must be made to find the correct treatment for the individual patient.

If a cat has the form of leukemia in which the malignant lymphocytes are in the bloodstream, he may do quite well if anemia does not plague him. Anemia is a big problem in 50% of the cats with lymphocytic leukemia. Those cats requiring more than 4-5 transfusions will usually expire due to the inability of the bone marrow to start making new red cells. This inability of the bone marrow to produce new red blood cells is called aplastic anemia and is a condition associated with the feline leukemia virus in the cat.

Many cats are sub-leukemic or may be called in a pre-leukemic state in which they are FeLV infected and are partially anemic and have low white blood cells. It has been shown that if these cats are given the serum of cats which are hyperimmune, they can become well. This technique, called serotherapy, seems to be a very prom-

ising, future remedy, provided the serum can be prepared and distributed to practicing veterinarians.

The other types of FeLV related diseases are the myeloproliferative disorders or the disorders of the white blood cells, which are made in the bone marrow. About 50% of these cats will respond to a combination of chemotherapy, serotherapy and immunotherapy.

Older cats do much better than younger cats, because they seem to have a better developed immune system. Often older cats are negative to the FeLV test yet have the tissue form of the disease called lymphosarcoma. Up to 75% of these cats can be successfully treated with chemo-immunotherapy.

In conclusion, cats who are sick with this disease have the opportunity for survival. It takes a team to try. There has to be a veterinarian who is willing to help the sick cat, an involved cat owner who is willing to take the gamble, and the right cat who is cooperative and has the desire to live.

In general, the odds are 10-20% for survival of a sick cat. The odds are 90% for survival of a healthy infected cat who gets on an immunostimulation program which can help the cat build antibodies and possibly convert

continued on page 30

GAINES DOG OBEDIENCE COMPETITIONS

Nineteen months ago, the Gaines U.S. Dog Obedience Program came into being in Elizabeth, New Jersey at the 1976 U.S. Dog Obedience Classic. Eight competitions and over 1,000 entries later, the 1978 U.S. Dog Obedience Classic is coming to the Los Angeles Sports Arena this December 3 and 4. The California community which has hosted the Western Regional U.S. Dog Obedience Championship for the last two years, is gearing up for what promises to be the biggest Classic ever.

The Pacific Obedience Association has an information forum as a direct adjunct to the Classic which will pro-

vide pertinent data on every aspect of responsible dog ownership. Present at the L.A. Sports Arena will be several representatives of various dog-oriented groups along with several dog care and training experts who will answer questions.

This "Total Dog Care Program" was conceived as another step to promote responsible dog ownership. The obedience-trained dog is a well received member of the household and the community. The cities that have hosted the Gaines Obedience competitions stretch from coast to coast.

The volunteer Host Associations that have produced these competi-

tions have become a viable force in the dog community and continue their role as advocates of responsible dog ownership. The introduction of the Total Dog Care Program broadens this role and enlarges their opportunities to educate and inform the community in general, of their purposes.

The Los Angeles show commences at 9 AM thru 4 PM each day and a donation is requested. All funds are dedicated by the POA, a non-profit organization, to furthering their goals of informing the entire Southern California community of the value inherent in responsible dog management.



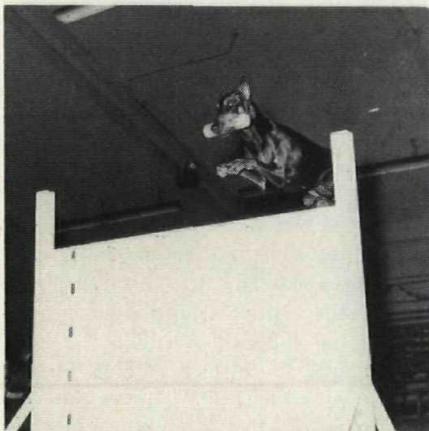
An obedience competitor and her Pug dog do the Figure 8 routine with two stewards serving as the perimeters.



An obedience competition judge checks the steadfastness of a dog in the "Stand for Examination-Off Lead" segment.



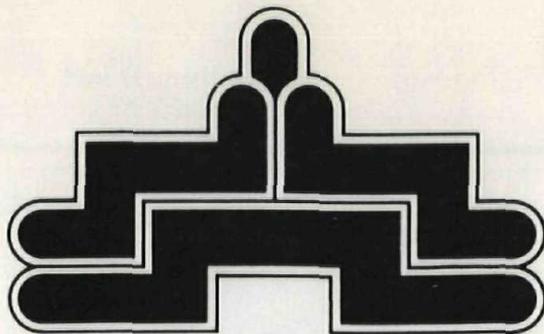
A Collie seeking to do his best in the Scent Discrimination portion of his obedience Competition test. The requirement is that he find the dumbbell with his owner's scent and return it to him.



This Doberman Pinscher shows excellent form in going over a hurdle after retrieving the dumbbell in the Retrieve Over High Jump segment of his obedience competition test.



A group of happy winners at the Gaines 1977 U.S. Obedience Championship with their dogs and trophies. On the extreme right are Russ Klipple and "TONKA," top winning dog in obedience, who captured the "Super Dog" title. (Photo - Gaines Research Center)



A CURE FOR BIG TROUBLE

The Patient I'll Never Forget

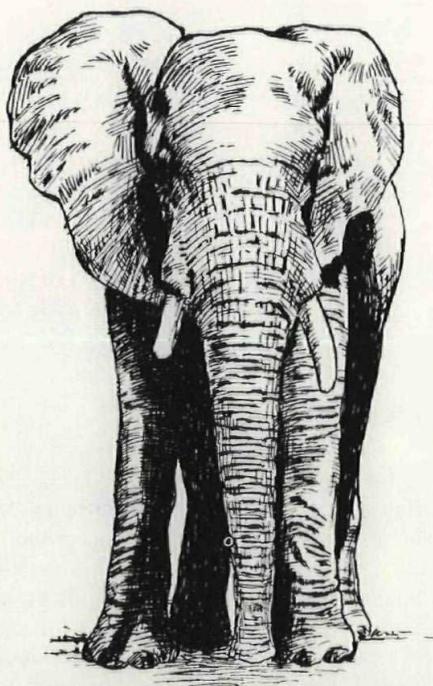
By F. Cowley, D.V.M.

reprinted courtesy of Friskies Research Digest

My story began on a hot, dry July afternoon. I had just returned to my office from making farm calls when the phone rang. I answered it hoping for a break, like maybe someone's poodle whose owner thought he looked sick but would bound into the office so that all I'd have to do would be reassure the client that everything was ok, it was just the heat.

No such luck. The call was from an animal trainer for a large circus that had set up on a lot nearby; he said that their largest elephant was sick and in urgent need of a veterinarian. I hurried over and met the head trainer, who explained that the ailment was a recurring one with this particular animal. It seemed he had spells of constipation during and after long rides in the train.

We entered the tent and there he was—all five and a half tons of him. Twenty three feet long and ten feet tall at the shoulder, he was the largest African elephant I had ever seen. He stood with his front legs wide apart, swaying from side to side, the tip of his trunk resting on the ground, his eyes closed, his temperature 102. When the trainer touched him on the trunk with his elephant stick, his eyes opened, but the swaying continued. I patted him on the trunk and leg as I'd been instructed to do. This, I was told, would instill confidence so that he



would know I was unafraid and a friend he could trust. I hoped.

One glance at this patient and I knew my balling gun, a device for giving pills to large animals, and arm were not long enough for *this* job. But the trainer came to my rescue. He suggested we get six loaves of bread and put the laxative boluses in them. I then decided on the laxative and the dose, basing my judgment on the relative dosage given large domestic animals as compared to this giant. The stage

was set except for one important detail: proper restraint.

Once more the trainer led the way. He sent for the canvas (tent) crew. They arrived on the run, the foreman and three men with 10-pound sledge hammers (this was before the days of machine-driven tent pegs). A 4½-foot steel peg was set in place, and the three men gathered around to pound it in with measured steady blows. When it was well secured, the trainer placed a wide heavy belt around the elephant's front leg, which was then attached to the peg by a steel chain.

I was to stand in front of and slightly to the left of the patient (since it was the left leg that was chained). And there I stood, bread loaves at-the-ready. The trainer gave the signal by tapping twice on the patient's trunk with his stick. Up went the trunk in a figure S, and the huge mouth opened. Quickly, I threw in the medicated loaf of bread. And so it went, until all five loaves were down — and success was ours.

I felt quite proud of my part in the performance. Apparently our patient was pleased too, because he put his trunk on my shoulder, then slid gently down to my waist, then down to the ground. And there, with the greatest of ease, he pulled the restraint peg out of the earth.

TICKS

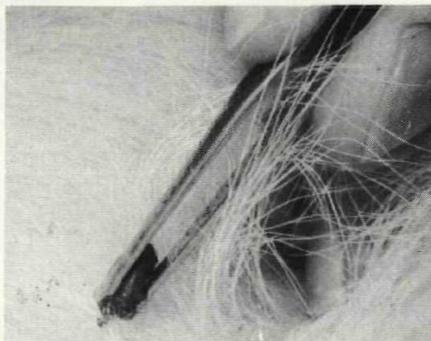
Ticks are common blood sucking parasites of animals. They are present in many areas of the country. Hungry ticks wait on tips of leaves or blades of grass and grab onto the animals that go by. The tick then feeds on the animal's blood for several days, becomes engorged and drops off. Female ticks may lay several thousand eggs after a single blood meal. Ticks can live for months without feeding. It is reported that ticks can remove up to 200 pounds of blood yearly from cattle in a heavily tick-infested pasture. In addition to causing a blood loss in your pet, the tick may transmit disease. A disease principally of wild animals that can be transmitted to pets and people by the bite of infected ticks is Rocky Mountain Spotted Fever. In animals the disease is usually mild. In people the disease can be serious producing a fever and rash, hence the name Rocky Mountain Spotted Fever. Most human cases occur between May and September. Generally people acquire the disease from infected ticks during outdoor activities in tick-infested areas or from infected ticks brought in by household pets, particularly dogs.



Tick beside penny coin. How big is a tick? A tick engorged with blood lying beside a penny. A flea is much smaller and would be the size of the date 1964 on the penny.

—Removal of Ticks—

1. Single ticks can be removed carefully by hand. The safest method is to grasp the tick by the head with a pair of fine tweezers or forceps and pull gently by firmly until the mouth parts are extracted from the skin.

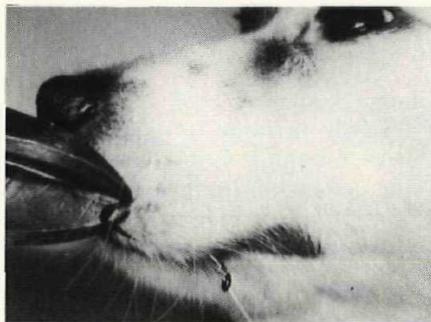


Tick grasped with tweezers. To remove a tick embedded in the skin, soak it in alcohol, then grasp the head parts at the surface of the skin and apply traction. If you care about your pet's skin **do not** use gasoline, kerosene or a lighted cigarette.

2. Pets heavily infested with ticks can be dipped in an approved insecticide solution. Be sure to read the label on the container before using.
3. Pets that frequent tick-infested areas are routinely dipped to prevent tick infestation. People who visit tick-infested areas are advised to check themselves twice daily for ticks and remove any ticks that are found.

FISHHOOKS

Fishhooks are not only a danger to fish, but they are hazardous to fishermen as well, frequently embedding in their fingers, heads, necks, backs and legs. Pets also fall victim to their owner's fishhooks. Keep your pet in mind when fishing and do not leave baited fishhooks around for pets to



Cutting the barb off a fishhook in dog's mouth. A common method of removing fishhooks under anesthesia involves pushing the hook forward until the barb emerges from the skin, then clipping off the barb and drawing the hook back out.

taste. No one likes the discomfort and pain of being caught by a careless fishhook. Anesthesia is often required before removing fishhooks when they become deeply embedded in the flesh.



Dog on a leash. A simple thing like using a leash may keep you from ever having to use your knowledge of first aid. Good news for your pet.

EARACHE

Pets suffer from sore ears and earache just as people do. Anyone who has suffered from an earache can appreciate what a pet goes through with infected ears. Animals with ear problems often exhibit one or more of the following signs; violent shaking of

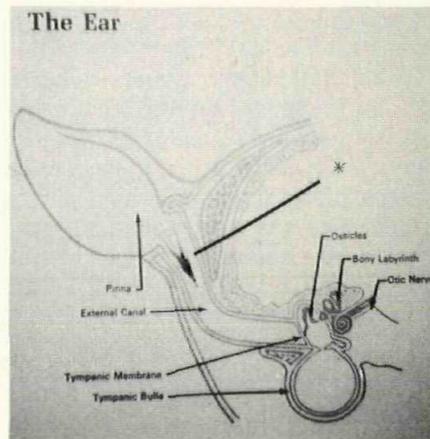


Diagram of a dog's ear. Anatomy of a dog's ear. *Shows how a plant awn (foxtail) can enter the ear canal which spells trouble for the dog. Ticks can also crawl down into the ear canals of animals.

continued from page 4

the head, scratching at the ears and throat, tenderness when handled around the head and neck, a foul odor or a discharge from the ears. Treatment requires finding out the cause which involves looking and seeing. Your veterinarian uses a special instrument, called an otoscope, to examine deep into the ear canal. Some of the things animal doctors find in the ears include; impacted wax, insects, grass awns (foxtails), ear mites (tiny spider-like creatures) as well as bacterial and fungus infections.

If your pet is in severe pain, a bland oil such as mineral oil or baby oil instilled into the ear will have a soothing effect until you are able to see a veterinarian.

DIARRHEA

Diarrhea refers to the frequent passage of watery stools and is not a disease in itself. Diarrhea is one of the more common symptoms seen by animal doctors, and it can be caused by several different things such as; infectious agents, poisons, cancer and intestinal parasites. Fortunately many acute episodes of diarrhea are self-limiting and do not require specific therapy.

If your pet develops a diarrhea problem, phone your veterinarian and ask for advice. Things that could indicate serious problems include; severe abdominal pain, development of a fever, bloody stools, depression. When going to the veterinarian's office, be sure to take a recent stool sample, so that the doctor can see the consistency of the stool and check the stool for parasites.

Emotional upsets in animals often cause a transient diarrhea. This is commonly seen in nervous high strung pets after such experiences as having strangers visit the home or after being bathed and groomed. In pet birds a disturbance in the ordinary routine, such as not covering the bird at night or chilling is enough to cause diarrhea.

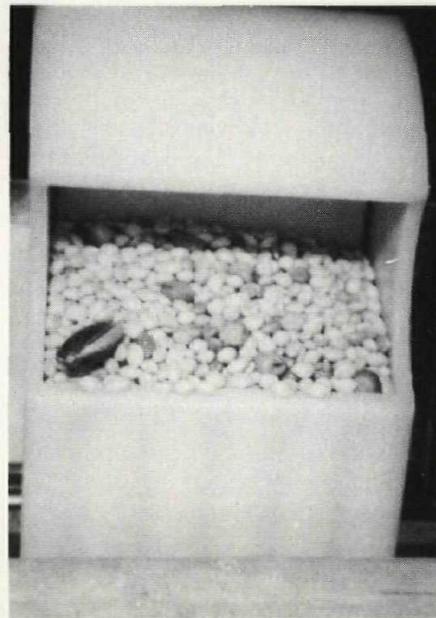
A sudden change in the normal diet of an animal may lead to a digestive upset. Often during the holidays pets develop loose stools for a day or two from eating rich foods they are not ac-

customed to. If you are going to change the diet, do it gradually — this is especially true of horses where a sudden change in diet can cause severe digestive upsets.

Puppies are notorious for chewing up anything they can find (leaves, sticks, paper, plastic, grass, etc.) and will often develop a transient diarrhea afterwards. They are no better at digesting junk than we are.

Feeding a diet high in milk or milk products will cause diarrhea in a small percentage of animals because these individuals lack the ability to digest milk sugar (lactose). This is seen occasionally in puppies and kittens. Simply removing milk and milk products from the diet of these individuals will result in a dramatic improvement.

In diarrhea caused by an emotional upset or sudden change in diet, a solution of kaolin and pectin (such as Kaopectate) given by mouth may have a soothing effect on the digestive tract. A soft, bland, low fiber diet such as cottage cheese, cooked eggs, boiled rice that is easily digested, can be fed in small amounts three or four times a day. Often in 24 hours the stool will return to normal.



Seed cup of pet bird. Remember when feeding your pet bird that moldy food tends to accumulate in the corners of the seed cup which can cause digestive upsets. Be sure to clean your pet's food and water dishes regularly.

initiative drive that will place the issue before California voters in the November, 1978 General Election. In excess of 500,000 registered voters are required to sign the petition.

The address of "CAST" is 1615 S. Escondido Blvd., Escondido, CA. (92025); or P.O. Box 2457, Escondido, CA. (92025).

Let us bring California out of the dark ages in dealing with our animals!

Bill R. Huskey
Chairman, "CAST"

I am a registered animal health technician and find your magazine very valuable in helping me keep up on what's new in animal care. Please keep up the good work. And I hope in the future that Today's Animal Health magazine will become a monthly publication, instead of bimonthly.

Enclosed is my subscription for two more years, and a gift subscription for a friend.

Mr. Jude Patton
Santa Ana, California

We, too, enjoy your informative magazine with its variety of material and sharing of personal comments. Dr. Alice Villalobos' articles are especial, for she treated our "Butterball" and us in her caring, helpful, and understanding way. She's some lady!

"The Beeners"
Fullerton, Calif.

I have an Anole. Its name is Jacob. Jacob is now eight years old, and has lived in a medium size glass aquarium with a screen top all of those years. I guess the secret to his long life is daily attention. I take him out and play with him and let him run around, feed him and give him water. He also loves to be talked to.

Alette Waychoff
Libby, Montana

for young people

by Dyana L. Paul

Story and Drawing by Troya Patch

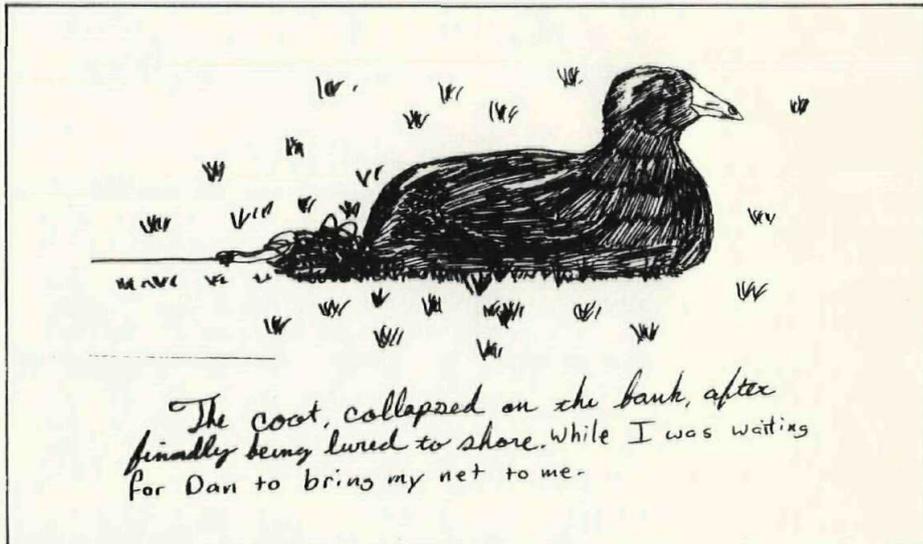
I'd like to get the following story published, so that people know what happens when they are not careful with their fishing line. I'm already a subscriber to your magazine, and I like it very much.

Troya Patch, age 17

This happened a month or so ago at my dad's house. I was 17. My dad's house is in a community village, near a man-made fresh water lake. One of the times I was with him for a weekend, my brother Dan, my step sister Irene, some neighborhood kids, and myself, decided that it was a perfect day for going down to the lake to hang out. They were there already, and I was on my way, on my bike that Dad 'fixed', with some bread to feed the local ducks and coots. By the time I'd caught them, after battling with my bike, Irene started yelling to me, something about a coot that couldn't swim properly. Being a slightly animal crazed person, as Irene already knew, I was soon craning my neck looking for 'my' hurt coot.

I was soon rewarded with the sight of a badly jerking, bobbing, unhappy looking, and hopelessly far off coot. We soon organized a bread-throwing brigade to lure him within reach. As he got closer, I noticed something familiar about his swimming motions, both legs were pumping back together, instead of in a paddling motion. He had nylon fishing line tying them together! Just a few months earlier I had cut loose a bird with the same problem. Just as I was thinking about it, the coot bolted, and everyone caught their breath as I did. There was a fish on the end of the line, a third of the size of the coot! We all began to throw bread with a will, and the coot finally hobbled up the bank and pulled short when the fish caught on something along the shore.

Knowing that I'd startle him back into the water if I went after him then, (his wings, which weren't hurt, would easily beat me to the water, and the fish was only preventing his landward movement) and he'd probably not be so easily lured in again. Also I knew that if I did nothing, the circulation



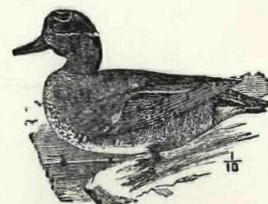
would probably get cut off from his feet and do serious damage, so I yelled for Dan to bike up to the house and get a large fishing net I had, while the others kept the coots attention with our dwindling bread supply. Dan, an eleven year old with boundless energy returned quickly, and passed me my net.

I got as close as I dared, and waiting until the time was right, when he had his head out in an awkward position, and I had the best chance, I darted out and just missed the startled flapping figure. With no other choice, I dived in the amazingly cold water, and swiped again. I caught the fish! Grabbing that, I pulled the coot close enough to net him, with Irene screaming something about drowning. Totally soaked, I came to shore with my 'prize' who was determined to take at least one finger with him, to what he must have felt would be his grave. As I was walking to where I could put him down and cut him loose, and trying to keep him, the empty hooks, and my nose separated, and trying to figure out how on earth I was going to explain this to my dad, a lady drove up. She started to yell at you kids who never leave the ducks alone. Irene explained what had happened, while I was cutting the loose line away with Dan's knife. At about the time I'd discovered that I'd need a pair of small sharp scissors to totally free the coot's leg, Dan found out the fish was still alive, and hurried off to throw it back.

The lady, living in the village, was totally understanding, and drove me, still wet, starting to smell, and holding a messy bird, back to her house where she had the perfect type of scissors. The coot in the meantime, was still busy with my fingers (luckily they don't have strong beaks) and decided to try for my nose too. He was a healthy, plump, young bird, and totally infuriated. I'd been holding him securely until we were at the lady's house. Then he made a quick, but unsuccessful break. Again secured, I finished clipping the line away, and was dropped back off at the lake where everyone was waiting. Luckily the line had apparently only been on a short time, for there was only the slightest impression where it had been wrapped around the bird's leg.

Back at the lake, we said farewell to our slightly mussed up coot, who paddled like crazy to the rest of the flock.

And then we walked home (I gave up on my bike) to my dad, who, after shoving me in the bathtub, was also totally understanding.



TRACKING DOWN A LOST ANIMAL

By Dr. Michael W. Fox

reprinted courtesy McCalls, August 1977

The entire family is disrupted when a pet becomes lost. What should you do if this happens in your home? And what precautions might you take to prevent such a thing?

Although many of the procedures for finding a lost cat or dog are similar, there are specific suggestions for handling each of these unfortunate mishaps. The first bit of advice is: Don't panic. If your pet simply slipped the leash or wandered off, you have a good chance of recovering it.

Looking for a lost dog is somewhat like looking for a lost child. It's possible to get clues to a pet's whereabouts by thinking over its characteristics and habits. Ask yourself and your family, "When and where did we last see the dog? Could he have followed neighborhood children home from school—or followed them to school?" My Welsh terrier not only tagged after the schoolchildren; he'd sometimes go to the playground for handouts at lunchtime!

Walk, drive or bicycle around the neighborhood, and call or whistle for your dog. Don't be shy about asking any passerby if they've seen him. Is there a park nearby where you often walk him? He could be roaming there, enjoying his freedom.

Check with neighbors who have dogs; some dogs, just like kids, like to play together. If your neighbors have a female dog that's in heat, your male pooch could well be waiting at their doorstep. He may also be on a doorstep five blocks away; a bitch in heat, either roaming free or out on a walk with her owner, will signal her condition to male dogs every time she urinates. These signals act like a magnet in drawing the attention of free-roaming males and they will follow them to the bitch's home. That's one of the reasons it's a good idea to confine a female dog to quarters when she's in heat, or to have her spayed—or at least give her chlorophyll tablets that will help block the signal in her urine. Besides making your own life easier, it will reduce problems for the owners of male dogs in the neighborhood.

If, after a thorough search, you still haven't found your dog, call your local police and local animal pound or humane shelter, and give them a fully detailed description. Since your pet may not be picked up by municipal animal-control officers for several days, keep calling—twice a day, in the late morning and late afternoon, unless they advise you otherwise. If you doubt their competence or if they have a very large shelter with many animals, don't hesitate to go there to look for your dog—especially if it's a nondescript mutt and, worse, has no identification tags.

Many shelters have a fast turnover rate; they destroy the animals after five or ten days to make room for more incoming strays and lost animals. Some even dispose of the animals after 72 hours. So keep up your visits—I'd say go every few days—and continue for as long as a month or so, if your pet has not been found. I stress this point because of an experience I once had at a very busy animal shelter. I just happened to drop by (intuitively?) two weeks after I lost my dog, and there she was! She had just been brought in.

Additionally, it's a good idea to phone local radio stations. Many of them have time allotted for public-service messages and will gladly broadcast a description of a missing pet. And, of course, use your local newspaper. A small-town paper may even run a photograph or story but, generally, you will have to place an ad in the lost-and-found column. (And, if you ever find a lost animal, don't delay notifying some authority—police, radio station, pound. Just put yourself in the place of the frantic owner.)

Many people make a number of small "Lost Pet" posters and stick them up on streetlight and fences in their neighborhood. Also, many supermarkets or drugstores have a community bulletin board on which you can post such announcements. Offering a small reward is always helpful. Give your phone number (not your name and address—no need to ask for trouble by giving too much information about yourself), plus a full

description of the dog and its name. A team of children making house calls for you in the neighborhood can be a great help, too.

Of course, there is always the hope that some kind soul has taken your pet into their house for safekeeping. One stray dog in St. Louis hit the headlines last summer when it rescued a small child from a blazing car. A newspaper carried a photograph of the canine hero and described it as a stray the child's family had just taken in; the dog's original owners recognized their runaway, and took steps to claim their animal. (When they saw how devoted their dog was to the child, however, they decided to leave their pet with its new family after all.)

Not all lost-dog stories are so dramatic and have such happy endings. All too often, when people take in a lost dog, they neglect to inform the authorities or to attempt to locate the owners by posting signs or newspaper ads. It's hard to believe that people play "Finders-Keepers" with a living creature, but, unfortunately, some do.

If there's an outbreak of disappearing dogs, it could mean that a pet-napper is active in your area. Thefts of pets have diminished considerably, however, thanks to more stringent regulations controlling the licensing of suppliers of animals for research (in the past, many a stolen pet ended up in a research laboratory).

Many animal shelters do, however, supply licensed dealers with dogs and cats for research purposes. In some cases, a stray is impounded only for a mandatory 72 hours before it is passed over to the dealer, and that means you don't have much time to save your pet. So don't waste time in merely hoping your pet will somehow find its way home. Act immediately to find it.

What safety measures—other than keeping your pet on a leash and making your backyard more secure—can you take to avoid a lost pet? Some pet owners believe that a dog that is allowed to run free is less likely to become lost, the theory being that a dog that is usually confined is not used

to freedom. While this is probably true, some roaming dogs become neighborhood nuisances, and they are certainly more likely to get into fights, be hit by cars, and so on. In any event, whether your dog is normally confined or allowed to roam, it should always wear a collar carrying an identification tag with your phone number and/or street address. Adjust your animal's collar so that it is comfortable but won't slip off.

A number of local humane organizations have programs to tattoo your pet. In this relatively painless procedure, the dog is tattooed in the groin region or ear with a special code number or with your Social Security number. One real advantage of tattooing your dog with an identifying number is that it stands a chance of being noticed by animal handlers—which could mean a reprieve from euthanasia. Also, some humane shelters will ask for evidence to support your claim to ownership of a dog they're holding. Knowing its tattoo number is certainly proof, especially if the dog has lost—or doesn't have—collars and tags. If no tattoo exists, a family photograph including the dog will help. You may consider these proof-of-ownership requests as frustratingly bureaucratic, but the better animal shelters are very particular about releasing lost dogs to just anybody. Also, after roaming the streets for days, your dog is likely to be dirty and emaciated and may be difficult for even you to identify—especially if it's one of a very uniform breed. And its reactions toward you won't always be decisive either. Some impounded dogs are so desperate to get out, they'll jump up and greet anyone like a long-lost friend. Others are so terrified and dazed that they don't even recognize their rightful owners. That's why some sort of distinguishing mark is so important. If your pet is not tattooed, examine it for physical characteristics that could help you identify it at a later time.

Train your dog to come to the blast of a whistle—it will be more effective, and easier on your vocal cords, if he ever gets lost. You could then scour the neighborhood, signaling again and again. And whether it's in response to voice or whistle, train your pet at an early age to come when called.

Familiarize your animal with a large area of the neighborhood where you live. If you take a dog for short walks in one direction only, it won't have the bearings necessary to find the way

home if it should stray. Remember, the scent marks of other dogs in the neighborhood can help a dog navigate his way home, so the greater the territory—and the number of scents in it—that your pet is familiar with, the greater its chances of making it back.

Some dogs are inveterate roamers and will do their utmost to get out whenever they can. As we mentioned before, when you take a male dog for a walk, he may smell the urine of a female in heat, and from then on he'll really want to get out on his own. Regular exercise can help to reduce this drive in some dogs and, obviously, castration will help significantly.

I remember the story of a small Border Terrier named Jock that belonged to a respectable family who lived in a small English village. Jock used to take the local bus to town regularly all by himself, and then take the bus back home later in the day. He did this for years and was a well-known character. Then one day Jock didn't come home on the bus as usual. After weeks of advertising in local and national papers, Jock was located 40 miles away in a large city. He was living happily with a family in Manchester who had found the intelligent dog wandering around, obviously lost, on the busy city sidewalk. Jock had accidentally taken the wrong bus. From then on, Jock's owners kept him at home, and he lived out his years contentedly. Granted, not many American animals take the bus often, but animals do have their idiosyncrasies; and if you have an independent animal like Jock, you'll have to use good judgment as to where to draw his boundary lines.

What to do if your feline is missing? While it's not that unusual for a cat to spend a night out every once in a while, if the pet has not returned by the next morning, it may indeed be lost—and you should follow the same procedures as for a lost dog. But remember that, unlike most dogs, a terrified cat may not come out of hiding when you call it. It may, however, meow in response, so listen carefully. Also, look up into anything your cat might climb.

A cat usually won't travel as far afield as a lost dog—perhaps a few blocks at the most—so you shouldn't have a long search. However, you'll have to be more thorough, because of a cat's tendency to hide under or curl up in much smaller places, as well as to climb into them.

Keep your ears open throughout

your search. Should your cat have wandered into the territory of a free-roaming tomcat or queen, there may be a ruckus brewing, so if you hear growling and wailing, you'd better hurry to the rescue. But be careful in recovering your wayward cat—it may be quite terrified and claw you in its hysteria.

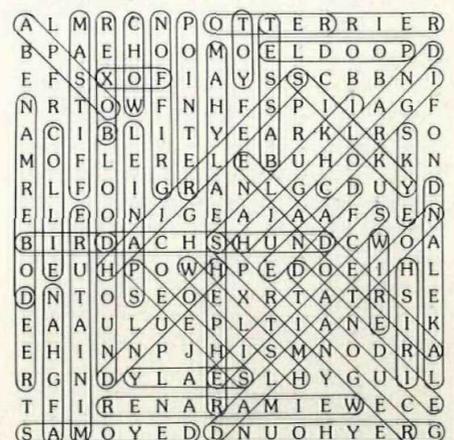
Since cats are nocturnal creatures, it may be necessary to go out at dark with a flashlight to seek your pet. Call for it—it may feel more secure in the dark and come out or meow in response to your voice. The flashlight will help you pick out its light-reflecting eyes.

Cats also can be tattooed and should wear a collar and identification tags, especially if they have a tendency to slip outside and go wandering. As with dogs, neutering your cat will help reduce its drive to go outdoors and thus reduce the chances of its getting into trouble. If raised indoors from early kittenhood, most cats actually prefer to stay indoors, so it's not really unfair to keep such cats confined.

If your cat does enjoy going outdoors, you can train it to become used to a leash. This will mostly involve your attaching the leash and trailing after it—a fairly boring pastime for you, but one way to keep your pet from meandering off on its own adventures.

A final note to the kindly but often misguided people who take in strays. If a strange cat or dog is at your door and it seems healthy and there is no heavy traffic or other danger nearby, don't encourage the animal to stay by petting and feeding it. A hungry animal that isn't sick or terrified should soon find its way home. And if it doesn't in a day or so, do your best to find the owners.

ANSWERS



well when rubbed briskly, but the dog's tongue will usually keep the inner surfaces clean enough. If the gums bleed it's usually a sign that some periodontal disease is present and may require veterinary attention. A dog's teeth also form plaque which should be scaled off whenever necessary to keep them healthy. Feeding dry foods tends to delay but may not entirely prevent plaque formation, and hard rubber or nylon toys help remove plaque by abrasion.

Q My horse has navicular disease, and my vet says to leave his heels high, but my friend who has race horses says the shoers at the track lower the heels for navicular disease. Who is right?

A I may be accused of some bias, but in such matters I would prefer to believe the veterinarian, upon whom I would also depend for a correct diagnosis. In this particular instance, all veterinary authorities are in agreement: the heels should be raised. Since I am not an expert on the subject, I will quote Dr. O.R. Adams, who has written the definitive textbook on *Lameness in Horses*: "The raised heels and rolled toe make it easier for the horse to break over and land in a way that decreases concussion of the deep flexor against the navicular bone. The raised heels also reduce frog pressure."

Q My Vocational Ag teacher in high school told me to give no water to my steer when he got the scours. Is that good advice?

A Without being unduly critical, I would consider this less than the best advice if it ended there. A scouring animal (especially a young calf) loses a large proportion of its body water in the loose feces, and fluid replacement may be critically urgent. If the animal is not already gravely ill, however, the first step is to withhold all feed and water for 24 hours, then give 1 pint of whole milk diluted with 1 pint of water (for a calf) every 12 hours, increasing the milk and decreasing the water as the calf improves. If the calf is prostrate, he may need large amounts of fluids and electrolytes (various salts) intravenously.

Q How long do cats stay in heat?

A If a cat is not allowed to breed she will usually remain in heat nine or ten days and return to heat every two to three weeks during the breeding season, and some queens will cycle throughout the year. Ovulation is induced by the act of breeding, after which heat generally lasts a maximum of four days. Thus a female allowed to roam will usually have a shorter heat period than one bred late or not at all.

CATS AND LEUKEMIA continued from page 21

to a negative test over an eight month period.

Those cats who were formerly strong and healthy seem to do better than those who are meek and in the "poor doer" classification. With more home care provided by the owner, there seems to be a better survival rate. This can be explained because of the tremendous psychological depression of a cat who is left in a cage rather than at home with familiar surroundings. Being in a cage with strange noises and faces is not therapeutic unless the cat is extremely ill and listless. Many pet owners are more than willing to force feed their cats and help them through the rough period. If a cat loses condition, loses all interest in food and is persistently anemic during adequate medical care, then the chances are very slim. But therapy is worth a try for the right doctor-client-cat team.

There are programs for those healthy cats which are FeLV infected. One in particular is a clinical trial being run at the University of California at Davis. The program is sponsored by a grant which is funding the study of the

serum of healthy, yet positive cats as they undergo three treatments designed to stimulate the immune system of the infected cat so that he may convert negative to the FeLV test.

Early results show that Group A, which receives the immunostimulation is doing better than Group B, which are the controls.

The prospects of a vaccine in the very near future seem a little less likely than formerly mentioned. It seems that the entire method of testing for infected cats would be useless if a vaccine were introduced which would make every cat who received the vaccine become positive to the FeLV test.

A vast amount of research has been directed to this problem in recent years. It seems that everyone is holding out for a vaccine to be given along with distemper vaccinations which would make all cats immune to the virus.

The day for this vaccine will probably have to be postponed until a more feasible testing arrangement can be made. The most obvious block to an effective vaccine is that it would make the test for feline leukemia inef-

fective. The FDA would probably never approve of a modified live virus for vaccine production because it could be passed horizontally to other cats in low doses, just as the true virus has been found to do. All this would confuse testing. A killed virus vaccine is not feasible due to the enormous numbers of virus particles needed to mass produce the vaccine. Some vaccines have been studied and used on a clinical trial basis, however not much has been said about mass production of these products over the United States. Also some vaccines are being tested in experimental situation. Kittens are vaccinated, then exposed to the feline leukemia virus to see if they are protected. The most important application for vaccine will probably be under special permit such as in a situation where the virus is rampant in a household and is threatening the well being of many pet cats. All the cats would be positive to the FeLV test, however, they might get the necessary protection for survival.

In general, a mass program for vaccination of all pet cats against the feline leukemia virus does not seem feasible at this time. However, many brilliant researchers are continuing investigation into this vital problem.

Down Under- Australian Animal Doctor

continued from page 11

Clipping is from Newspaper
"The Sydney Morning Herald"

Date: June 4, 1977
Sender: Denis Arcand
P.O. Box 28
Dampier, W.A. 6713
Australia

Last year the Port Macquairie Apex Club won a Herald Community Service Award for providing a hospital for koalas in the city's Macquarie Bush Reserve.

The Apex club's involvement with the koala population began when a member of the city's Koala Preservation Society spoke at an Apex club meeting.

The Apex club members learned that the health of the city's koalas was suffering as a result of the increasing urbanization of their environment.

As the animals made their way around their established territories, they found the trees thinning to make way for housing developments.

They were forced to spend more time shuffling along the ground as they moved from one feeding area to another.

On the ground they met health hazards which had not affected them in pre-urban days. Cars, dogs, ticks and leeches all took their toll of the grounded koalas.

The Apex Club decided to try to help reduce the mortality rate by building a hospital for them in the Macquarie Reserve.

The 20-acre reserve on the Cathie Road is not far from the beach front and the city centre but it has been a favourite residential area for koalas for generations.

Since the hospital was built by the Apex Club members it has recorded 56 admissions. In the days before the hospital was established the preservation society had managed to provide long-term care for only two koalas.

Now, koalas can be admitted to either of two compounds, each centred on a favourite gum tree, or an intensive care ward in a nearby shelter.

A number of local veterinary surgeons visit the patients.

There is, however, still a long way to go if a koala population is to survive in the city.

The society, which operates under the guidance and control of the National Parks and Wildlife Service, now plans to fence off part of the reserve to keep a breeding colony of koalas safely enclosed.

successfully. The sudden removal from their familiar habitat further aggravates the shock, which is already present due to sickness or injury and human contact. It is therefore imperative to place the animal in an environment as acceptable to it as possible, at the earliest possible stage, and to continue treatment in these more amenable surroundings. Despite all precautions taken to minimize shock, this is frequently a fatal factor in an animal with otherwise minor injuries.

We are fortunate to have a dedicated conservationist in Wollongong who devotes much of her time to caring for native animals in distress. Her home is on the outskirts of Wollongong and is in a bushland setting ideal for this work. The accompanying photographs of kangaroos and wallabies were taken at this refuge.

"Curiosity", the joey, Australian for baby animal, loves her substitute pouch! Her mother, a wallaroo, was killed by a car when the joey was only about 6 months old. She is now a thriving 12 month old and will be released in an area south of Wollongong in Spring. At birth joeys are less than half an inch long. They spend most of their first 8-12 months in their mother's pouch, the exact length of time varying with each species.

Recently I received a call to another less fortunate animal — a swamp wallaby. This wallaby had come out of the bush during the night, following a creek. He was then chased further down the creek by dogs and when found early next morning he was partially submerged in the creek with his back against a rock, defending himself against more dogs. When I arrived he was obviously badly shocked and lying motionless, but apart from bruising, he had no other apparent injuries. I took him straight to the refuge but though we were able to dry and warm the wallaby, he died later that day.

Kookaburras and possums are other native animals encountered in our area. Koalas are now rarely sighted here though they are present in other localities.

The aim with those animals that survive is to release them in their native surroundings as soon as they are able to fend for themselves. Where possible they are released in an area which is familiar to them — that is, the area where they were found. Sometimes this may be contra-indicated — for example, if the area is becoming more frequented by people or dogs etc. In this situation the animal is released into an area with similar bushland features but in a more secluded situation.

Any veterinarian wanting to establish a successful practice must offer an after hours service for emergencies or an alternative emergency service. In our practice we have at least one veterinary surgeon on call at all times. Frequently two veterinarians are required for weekend work. Administration of the practice is also a most important and very time-consuming necessity. Our working hours are long — often in excess of 60 hours a week.

Obviously the veterinarian (and his family!) must enjoy veterinary work!

“With lots of love and ALPO, Spirit now lives up to her name.”



BEFORE ALPO:

Spirit on July 7, 1976. Suffering from insufficient protein, malnutrition and neglect.



AFTER ALPO:

Spirit on December 1, 1976. Enjoying good health after a steady diet of ALPO's meat protein and loving care.

“We found her on the 4th of July, so we just had to name her “Spirit,” not that she had any. When we first saw her at the pound, we knew we had to adopt her. Why, we could count that poor pathetic dog's ribs. No pep, half starved and craving affection as much as food. We have plenty of both to give her.”

Plenty of love and plenty of ALPO Beef Chunks Dinner. That's what the John Holbens of Allentown, Pa., had to offer Spirit, the sorrowful looking dog that won their hearts. The Holbens' local veterinarian informed them that Spirit had no diseases, but was badly in need of a proper diet and lots of attention.

“We figured that she needed the kind of food that would stick to her ribs—and build her up. And what's better than good rich chunks of beef? That's



why we decided on ALPO.”

The Holbens made a wise decision. Meat-based foods are more digestible than cereal-based foods. Which meant Spirit's system was able to absorb and use more of the food she ate. Since meat is a dog's natural food, she loved ALPO and her appetite improved. Her health improved too, because ALPO, with meat by-products, beef, soy, vitamins and minerals has everything a dog needs every day.

“We'd always heard that ALPO had every vitamin and mineral a dog needs every day—now we know it's true. Because after just a few months of love and ALPO, that dog has so much energy and spunk that we can hardly keep her down. Now Spirit sure lives up to her name!”

ALPO and love—they make a difference.