

Care of Orphaned Skunks Part 1

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[This is a compilation of information from many sources over many years.]

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NOTE: CARE OF ORPHANED SKUNKS PART 2
For more medical specific information

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INFANTS

Keep Warm: Put the baby/babies in a box or cage with lots of rags and place a portion the box on a heating pad on **low**, leaving a portion unheated to allow the baby to move from the heat if necessary. Hot water in a jar, wrapped in a towel or a 'hot water bottle' can be used but the temperature must be monitored

Find a wildlife rehabilitator in your area and get the animal to them as soon as possible. Can't locate one yet? Do the following and get the baby to a rehabber as soon as possible.

Examine Let's take a good look at it. Do you have some latex gloves? Write down what you find. Each skunk will have a different stripe & nose stripe to differentiate...note also if they are male or female...if unsure it is probably and female.

Watch for **fleas ticks and lice** [some look like dandruff] and treat as you would a feline kitten. Check behind ears, in armpits, between toes. *Be careful with flea powders or sprays which can harm their lungs, put on to your fingers then apply sparingly to baby. Flea shampoos or Selson Blue can also be used. Frontline or Advantage spray or drops for cats may be used on your skunk. If using drops, give 1/2 the dosage prescribed for cats. OR put a little Garlic Juice in the food almost every day. **Revolution or Advantage** [see your vet] can be applied to help rid the skunk of parasites, however sometimes it takes hours of pulling tiny dots [the size of a period], white or brown from their bodies.

Discharges from body orifices?

Maggots These are found in body orifices or wounds. They look like white cartilage in the ear but they squiggle! In one baby skunk I checked the ears quickly. Noticed nothing. Next day rechecked and was unsure about one ear. Got some alcohol and q-tips and swabbed the ear canal. From the lack of oxygen the maggots came to the surface and after several hours' work I pulled 31 maggots out of the ear with tweezers. Some about 1/16th of an inch up to ½ of an inch. Gross but necessary to do as the maggots could have caused, deafness, blindness and eventually death. Capstar is a drug you can get from the vet that will kill the maggots in the body, it however does not get them out of the body, you must do that by flushing the orifice or wound. Dose in a 4-5week baby skunk was the 'smallest'. One tablet was cut into four. 1 fourth was crushed added to something sweet [honey, jam]. One a day was given for 3 days. A different vet actually crushed the tablet mixed with water and flushed the ear with it...another has inserted into the rectum [assimilates quickly into blood stream here if the animal cannot swallow.]

Dehydrated? Baby has been without Momma for how long? Don't know? Then presume it is dehydrated. Pinch the skin. If it stays 'pinched' it is definitely dehydrated.

Re-hydrate all orphans for a day at least or more, if the animal needs it. *Home made version*:

1-teaspoon salt, 1-Tablespoon sugar and 1 quart warm water OR Gatorade if you have it in the house. If you want to buy something go a pharmacy and ask for Pedialyte a liquid of which you will throw out most of it or powders like Gastrolyte, which you can mix what you need. Administer with eyedropper or preferably a 1 cc syringe [no needle]. If the animal is bigger use a 3cc syringe.

Wean the baby from the rehydration fluids onto the formula over a day or two, depending on how dehydrated it is. Give $\frac{3}{4}$ hydrating formula + $\frac{1}{4}$ formula. Next feeding $\frac{1}{2} + \frac{1}{2}$. Then $\frac{1}{4} + \frac{3}{4}$ etc.

Age, Feeding Schedule & Diet

For amounts and weights note chart on the next page.

Formula: Espilac <u>puppy</u> formula has been used for skunks which can be purchased at a pet food store or vets.[2010 saw problems with this formula]. Fox Valley has a special formula for skunks. Mix per instructions. Administer with syringe or bottle. [I find most will not take the bottle] At first they may not want it, as it does not taste like Mom. Slip the syringe between their lips and force some in. Very quickly they get the idea. They are small and will

only take a small amount depending on their size, note the chart below which will give you and idea of the approximate amount of intake. When they don't want more, stop. Watch their belly; do not feed so much it gets distended.

*Never reheat the formula in a microwave as essential enzymes are destroyed. Mix small amounts and warm it up sitting in a bowl of hot water.

Poop & Pee: After feeding stimulate the intestinal and anal area, Momma skunk would have done this by licking in a downward motion to their bum. You can do the same with a warm wet rag or cotton ball. If very dehydrated they may not urinate or defecate immediately. They normally will do this on their own after their eyes are open but at first no matter the age you do it until you are sure they can. [Normally the often go 2x a day]. When eyes open use litter. [Note 'Bathroom' below] stool will turn to soft yellow and should be formed [often looks like grape clusters]-watch for diarrhea. A couple of drops of Kaopectate can be used for diarrhea. [Gloves, hand washing and careful hygiene are recommended here.]

Age: How old is the kit? New born with no hair [can usually still see where the stripe will be] Information below is compilation www.orphanedwildlifecare.com/skunkcare & person information

NOTE ON CHART BELOW I HAVE ADDED MY OBSERVATIONS –DIFFERENCE MAY BE CANADIAN TO U.S., PERHAPS IN THE SOUTH, BUT THERE ARE SOME INTERESTING DIFFERNECE.

AGE Birth 30-35g -nearly naked -often showing black & white pattern -eyes & ears are sealed -can	FEEDING 2-2.5cc Formula 5-6 times per day.	STIMULATION -stimulate genital area before and after feeding to induce eliminationuse a q-tip or the tip of your finger dipped in warm water.	HOUSING -vital to house baby animals inside a house or under rags -cardboard box filled with soft, ravel free blankets heating pad under cage/box on low with thick padding of rags to not 'burn' baby. They will normally go to the hottest spotwater bottle most be monitored often to keep warm enoughprotect from drafts.	SPECIAL CARE -when handling the skunk hold its tail between its legs, this way it can not spray. Be gentle and do not startle the skunk and you should not have problems with it sprayingwrap skunk in a soft towel when removed from box, to protect from draftswatch for signs of diarrhea. Stool may turn to a soft, yellow pudding from the formula.
1 week -50-75g -slightly furred -skin becoming pigmented	4-6 cc Formula 5-6 times per day	-same as above	-same as above	-wrap in towel while feeding. If a single skunk put a small stuffed animal in cage.
2 weeks -weight 125g -fully furred -ears open -musk odor is more apparent	8-10 cc Formula 4 times per day	-same as above	-same as above	-wrap in towel while feedingany diarrhea from formula should have cleared up by now. (Call your vet if it still has diarrhea). Starts to wiggle around, and needs more attention.
3 weeks -eyes might open	10-15 cc Formula 4 times per day	As eyes open stimulation can be reduced or stopped if they eliminating on their own get kitty litter into their caged	-can be moved into a large pet carrier, continue to provide towels and blankets.	-wrap in towel while feeding. Moving around morecan give strongid a de-wormer- to baby-follow directions per weight of baby as per directions or vet. The dose we give to cats

4 weeks Eyes opened -weight 340g- to heavy for any skunk I have had- 200-250 -attempting to walk spider like -teeth are nubbins 5 weeks -very playful, steadier on legs -teeth erupting	15-20 cc Formula 4 times per day I find this too much. Soft dog kibble- with formula on it. 4x/day 10cc/meal
6 weeks -teeth full length	Soft dog kibble- with formula on it. 4x/day 10cc/meal
7-8 weeks -fully weaned Abt 600g	Soft dog kibble- with formula on it. 3-4x/day 10cc/meal

--skunk should

Eliminateing on its

definitely be

own.

Once eyes open they will begin to use kitty litter on their own.

-same as above.
-can eliminate artificial heat source unless very cold or only one or two babies. Use your discreation

grow quickly.

Larger 'houses' or hidey

-if cage is relative small

for this size and number of

skunks, allow them to run

about in a confined area.

- skunks are now ready to

live in the large outdoor

cage. They must have a

secure nesting box and a

frequently) for digging if

grass. Remember they can

dig their way out of many

you cannot put them on

sandbox (change

enclosures.

boxes will be needed they

Teeth are nubbins [showing beneath gums]-some will not eat solids until teeth in longer than this -introduce dry dog or puppy kibble, moistened with water, along with a separate dish of drinking water. Refresh solid foods morning and night.-(increase as needed *Depending on teeth development, moistening of kibble can be eliminated.), and introduce natural foods, nuts, fruits, cooked meat, and vegetables. These foods are critical to produce a balanced, healthy diet. -skunk should require very little if any formula and should be eating solids consistently. Wean fully during the 7th week. Can be move to outside pen. Adult, skunks cannot climb; however, as babies they can sometimes surprise you.

Starting about 8-9 weeks they

will start to sleek out and loose their cute fluffy kitten coats.

is 0.4ml per kg (or 0.4ml per 2.2

-put small container of litter in

cage



Juvenile Skunks

5 + weeks

Housing

Soon your little infant will need to be moved into appropriate size caging. Much depends on the number of skunks you have. They need room to run and play and dig. I go through a series of cage sizes ranging from hamster cage; double hamster cage to rabbit cages [3'x2'], indoors. Once the weather is moderate, and they are approx. five weeks old they can go in 'the big cage' outside. This cage is 4'hx4'wx6'l and made of ½" wire around a wood frame. I lay boards on the

bottom for a floor. Kitty litter [note bathroom section below] is placed in two corners. Large plastic container boxes [with lid] have plenty of air holes and a door cut out. Rags are used for bedding and when older you can provide them with leaves, twigs etc. to line their nest. Occasionally the skunks will poop/pee in the house and the plastic and rags allow easy clean up. They are also waterproof.

While small one house is usually enough however they grow quickly and for 6-7 skunks I use two containers, granted most of the time they pile up in one, but you will notice the older they get the more territorial they become.

Even with a cage of this size they will need more room to run and play. I have a small walled 2'high, play area out side of the cage they cannot climb out of. If this play area is on the ground, be sure they can't dig out. Now normally skunks cannot climb as their butt is much heavier than the rest of them, but occasionally during growth spurts they can haul themselves up higher than expect.

They, inside their houses are lifted out of the cage and litter is moved also. [be sure they can't climb out using the litter box as steps.] This area is about 8'square and a child's covered sandbox is placed in it. Put dirt with stones/worms/grubs/plants, in it and watch them dig. Rarely but occasionally they will go to the bathroom in it. The lid is slid over to the side and they love to play under it.

Water and food are always set out. Make sure there is shade for them.

Because this play area is not covered to protect them from large predators [hawks etc] they are always supervised.

Transferring them in their house at this time allows them to become secure in their house during transfers later to vets or to their release site.

Solid Food

Now comes the decision time. In the wild skunks do not eat dog food, however many rehabbers cannot give the time & money to preparing meals consisting of different fruits, veggies & protein.

For a balance meal skunks should have different fruits, all veggies [especially broccoli & carrots], fish, boiled chicken & other protein, eggs cheese, cottage cheese, starches [can include rice, pasta, sweet potato etc.] They then can be introduced to vegetation and live insects, small animals they would find in the wild. Rule of thumb: they eat what we should eat all food groups. Do not give them the junk food.

To avoid metabolic bone disease, broccoli and cauliflower and essential. In most cases the skunks can eat what you normal throw in the compost.

Supplements

Lack of Taurine and bad diets are the major causes of Cardiomyopathy in skunks. It has been suggested that a skunk needs approx. 250 mgs of Taurine daily to help prevent Cardiomyopathy and other health issues.

Hartz Cat vitamins [50mg], Nutro Ultra Dog Kibble 1000/kg –Taurine capsules 500mg capsules

OR

Kibble dog/puppy food can be soaked in water and given to skunks to wean off of formula [might add formula to it at first to entice them] **never use any type of cat foot or any canned pet food.** A good kibble puppy chow can be used as a base and fruits, veggies and chicken supplemented. As they progress introduce vegetation and live insects, small animals they would find in the wild.

The Wild Diet

They are especially fond of grasshoppers, ground beetles, and even bees, excavating their nests and eating the larvae. Skunks are an omnivore, feeding heavily on a wide variety of animal food in spring and summer, including insects and grubs, small mammals, the eggs of

ground-nesting birds, and amphibians. Some of the more important invertebrate foods consumed are spiders, snails, ants, wasps and crayfish. They eat fruits in season, such as wild cherries, ground cherries, black berries, blueberries, and many others

Skunks are diggers and will get insects from the ground, old stumps etc. If they can't be taken out of the cage to dig then put pots of dirt into the cage or run area and put insects, grubs etc. in for them to find.

A child's sandbox works well.

Chocolate kills. No fried foods. No sunflower seed in the shell. No cat food. No junk.

Bathroom

Put clay, unscented kitty litter in their cage [in appropriate sized container] once their eyes are open. They always back up to poop in a corner [they'll pick the corner] so a high back kitty litter container works best. [Small aluminum bake tins cut down work well and are disposable-fold over sharp edges. Ferret corner litter containers work well as they grow.] On a weekly basis, clean the litter box or floor with a solution of 1/4 cup of Clorox to 1 gallon of warm water. This formula will not cause health problems or damage the skunk's lungs. Be sure to wear gloves when handling

Clean the litter out every day, depending on the number of skunks and their size, several times a day.



them right over. A spectacular feat.

Christmas Trees and Stomping

One day your little baby skunk will turn into an opinionated juvenile. When startled or wanting attention or wanting to play, you will hear a little thump, thump. Their little front feet will stomp on the floor to get your attention. There whole body is usually rigid and their tails spread like a Christmas tree. It is quite a sight.

In the wild this is the first line of defense which warns predators to PAY ATTENTION!, I AM HEAR! They do not spray from this position. [note Smell/Spraying below]

As adults they make few vocal noises but do use stomping to communicate.

Occasionally when young they will do a running stomp. They run and stomp their front feet and momentum causes their butts to continue in a forward direction, flipping

White Stripe? Each skunk in a litter usually has a different stripe; some have no stripe at all.

If his stripe is yellow or gray there is something wrong. This could be diet, stress or medical. Pay attention to the food groups? Is he eating something from all of them? Too much noise or activity near the animal? You may need to go to a vet to determine the cause. Every skunk has a different length of stripe and blaze on their nose; these will not change as they grow.

The problem can also be roundworms.

Roundworms

All Skunks Have Roundworms. Even if they are not found in fecal testing, they are in your skunk's body and he must be wormed twice a month. Strongid is recommended and sometimes can be purchased at TSC stores cheaper than at the vets. Follow directions by weight. Most doses are .4cc/ 4.4kg of weight. It is given three days in a row then every 2 weeks.

Evict or Nemex 2 liquid dog wormers can also be used.

If you prefer the All-Natural way you can use seeds from Cantaloupe, Fig Juice or Cloves. These will not harm your skunk in any way and are very safe to use.

Many vets will say de-worming is not necessary however it has been proven through experience that this is a problem with all skunks. In adults even a 'depressed behaviour can be rectified by de-worming.]

Symptoms are rubbing diarrhea bottoms on the floor, bad breath, coughing, lack of appetite, bloating, and hiccups and rectal prolapsed. The problem with roundworms and skunks is you cannot kill the round worms until they attach themselves to the intestine. Some roundworms just float around in the blood stream filling up the lungs and the heart and it is so common in the animal world to have roundworms that people just forget how serious a problem this can be. This roundworm is not the same as raccoon round worm however, it is still dangerous and all fecal material should be treat with care using gloves and washing well with soap afterward

Sensitivities: Skunks are very sensitive to chemicals/ candles/smoke etc. If bleaching cages or using disinfectants when cleaning cages, be sure to rinse very well.

Disappearing Skunks: They can escape and hide in areas, which seem much too small for them [what their head goes through, so to does the rest of their body].

Spray & Smell

Skunks can spray almost from birth. But not too worry. I have rehabbed lots and rarely been sprayed. The scent gland is located in the rectum and when a skunk is going to spray the anus rolls back to expose two nipple like glands. When they spray they go into a horseshoe shape with face and butt facing you. As adults they can spray up to 15 ft with accuracy. Now this cute little skunk kit often smells like 'skunk' when you get it. The younger they are the more they smell. Very young they have little control over with their anal muscle and some of the smell 'escapes'. By 3 weeks when their eyes open, they usually have control.

Occasionally they make a smell, a whiffer, which is much like a fart, which doesn't smell great, but they have not sprayed. Just open a window, it will go away.

A skunk sprays because it is afraid. Don't scare it! They don't see well, even as adults and sudden movements and noises will scare them. Move slowly and speak calmly, especially when you first get the orphans. As they become accustomed to you the danger dissipates.

If the baby does spray don't worry, it washes up well at this age. At puberty [between 3-6months] an oil goes into the gland that causes it to adhere to clothes, skunk, hair etc. but at this age the problem is not as great. Dissolve some ascorbic acid [used for canning, also known as Vit C] in water and use in a spray bottle as an air freshener or to wipe down the area which was sprayed. White vinegar is also good. For an adult's powerful spray there are receipts available that don't turn the dog orange:

Eradicate skunk smell:

On clothes: one in ten solution of bleach and water will usually take it out. I have been sprayed on clothing and used only a ½ C of bleach poured in after the washer begins to agitate has taken care of it. Since spray is actually a watery gel and goes directly to an area, you can wash each area individually. Just follow your nose.

Also, a solution of ½ white vinegar and ½ water will make baby's bottom smell like nice again. (Granted, a bit like a salad, but nice again!!)

Or

On people, pets or other items: 1/4 C Baking Soda

1 teaspoon dishwashing detergent

1 quart Hydrogen Peroxide Apply while it is foaming

The detergent breaks down the oil in the spray and the oxygen released in foam neutralizes the

Thiols [odor]

House Odor: Boil Vinegar for a couple of hours

Deterrent Spray [for wild skunks]

8oz liquid dishwashing liquid + 1 gal water

Spray area especially perimeter. It is unpleasant to wildlife but good for plants

Play time. Unlike other wildlife, skunks don't play with most toys; they just love to play with each other. If you have a lone skunk, try and find another litter to place it with. If not put a stuffed animal in with it. You then become the playmate. Wear a heavy/fluffy glove when playing as it can be rough and they will know that special glove time is playtime. They will charge at you with back arched, tail up and flared like a Christmas Tree, stamping its feet and scooting backward. It is not mad or vicious it is doing the skunk shuffle and wants you to play. Get down and play. If he stamps, you stamp your hands on the floor. When he scoots away chase him then stop and stamp and he will come back to you.

They also love tug with a towel or rag. They often play soccer with small balls and defend the litter.

Most love to have their tummys tickled and will often run over to you an flop on their backs. All of these games are less and less popular the older they get.

Noises. Adult skunks make virtually no noises, except a high pitched scream when in distress. Babies however, tweet like a bird when happy and grunt like a pig when unhappy or wanting attention. They also make full use of the scream when looseing the wrestling match.

Nails. Their nails grow quickly but should not have to be cut prior to release. If it is necessary to trim them hold a flashlight on nail to see the blood vessel and avoid it.

Transporting

If you need to transport animals to a vet and are concerned about picking them up, place some food in the travel cage and let them go in. Cover the travel cage so movement won't startle them into spraying. Talk softly to the animal and move slowly and you can do just about anything to them. I have never had a skunk stressed from a car ride; they usually just curl up and go to sleep. As they grow older you can block the door of their house/container and transport them in their house.

Infections: I had a juvenile skunk develop an abscess and had to soak its foot in hot Epson salts, incise the wound, squeeze out puss, flush out the wound, apply antibiotics etc and not once did the skunk nip or spray. Skunks, unlike other wildlife allow you to do almost anything to them if you talk nice. [The vet is constantly amazed how docile they are.] Eyes, even when closed can develop infections which require strong antibiotic and much squeezing out of the pus. It does not seem to cause blindness, which amazes me. Our vet said that skunks seem to develop a layer of fat under which bacteria can travel easily through out the body.

Once an infection starts it is very difficult to get rid of it and our vet advised going to a heavy-duty antibiotic immediately.

Medical Specifics

There are more medical specifics following. Part 2

Contact: The older the skunk gets the less contact you should have with them. This is very easy if you have several, as they really don't want much to do with you. As release time comes you should be just feeding and cleaning out the cage, however they must remain familiar enough with you that you can catch them [without getting sprayed] in case of vet visits.

Release: In Canada 90 days [3 months] is the earliest they can be released and that is as a slow release where someone will provide food for them for a few weeks. If the skunk lingers at the release site and returns for food, use the following guide, unless the animal looses weight:

Week 1: drop food every day same time. Near dusk or dawn is normal foraging time for skunks

Week 2: drop food everyone other day none of their favourite food. Veggies/fruit and chicken

Week 3: drop food every third day.

Week 4: drop food every fourth day.

Week 5: you have the idea but usually by know they are established on their own. Some animals have more problems than others especially on a solitary release and may require long term assistance. This fact must be factored into your release site from the beginning.

Note: In all the releases I have done I usually I usually never see the skunks again, nor find evidence of their presence. I leave their houses with them but usually by the second or third day they have abandoned their accommodation and disappear. If the food left is untouched after a few days I abandon the schedule and just check occasionally.

Surgery: Vets should use ISOFLORINE GAS when doing surgery.

In 2010 - Domitos and Ketamine, 0.01ml each mixed IM where used in surgery

HEALTHY SKUNK

Glossy, thick coat
Eyes bright and clear
No yellowing of the white fur
Solid, formed stools
Active and happy
Not overweight
Good appetite
Not underweight

UNHEALTHY SKUNK

Drastic change in bathroom habits (middle of floor, frequent urination, many locations) Frequent thirst or increase in the amount of water Dry,

Brittle, dull or thin coat

Coat loses its color-becomes dull,

Dandruff

Yellowing or loss of hair

Obesity (fat skunk)

Dry, cracked feet
Aggressive behavior and biting
Loss of appetite
Makes constant unusual noises
Runny nose and eyes
Body odors-Altered skunks should have no body odor
Coughing and sneezing
Bad Breath
Rubs sides of face or head
Limps

Skunk CPR

Open the mouth and clear any obstructions, use the modified Heimlich above if necessary. Lay skunk on right side.

Using two fingers under left arm pit do slow and steady compressions, one every two/three seconds, do this four or five times.

Hold mouth closed and place your mouth over nose and blow sharply into the nose two/three times.

Repeat procedure until breathing and normal pulse return.

Choking

Monitor your skunk(s) after meals to make sure they are not choking or have something stuck in their mouth. Skunks that eat fast, or will fight with other pets for foods, will get food or other things stuck in their mouth or throat. Some skunks will eat too much at a meal and throw-up some of the food, occasionally they will aspirate the food. Usually they will try to use their front nails to pull the object out, sometimes they are not successful and need your assistance.

If you have a skunk that is prone to choking, chop the food into fine pieces and make sure that you don't give anything thick, like peanut butter, without watering it down. You should soak dry (dog) food in water, or a 1:1 mixture of fruit juice and water, to soften the food. Sticky foods, like bread and moist grains, should be broken into small pieces and mixed well with other foods. Also make sure fresh water is available after meals.

If the skunk is still breathing (partial obstruction) try presenting sweetened water, juice, etc., to determine if the skunk will drink and possibly clear the object. **Do not force the skunk to drink**, you can try a few drops on the tongue or gums to induce the skunk to drink if necessary.

You should have a few plastic or wooden spoons, wooden sticks or pop-cycle sticks, or a rubber-coated baby spoon, that you can use to pry the skunk's mouth open and dislodge anything stuck in there. Be careful that you don't push the object farther into the throat! Do not put your fingers in the skunk's mouth!

If necessary you can use a modified Heimlich maneuver to help dislodge an object stuck in the throat:

Place the skunk straddled across one arm with the head in your hand (you may have to hold the skunk by the sides of the head with your fingertips being careful **not** to hold the neck or throat tightly).

Tilt the head down as much as you can and still maintain control.

Strike the skunk three or four times using sharp blows with the heal of the hand just behind the front legs.

Support the back and turn the skunk over while keeping the head tilted down.

Strike the skunk three or four times with **two fingers** between the front legs.

Inspect the mouth to determine if the object is still there, make sure you don't allow the object to slip back down the throat.

Repeat the procedure as necessary.

If the skunk stops breathing you may have to perform CPR.

<u>Unreleasable Skunks:</u> Very occasionally you may have an unreleasable skunk. It may have physical disabilities to limbs, blindness etc, which make it impossible for the skunk to survive. If you are an Authorized Wildlife Custodian under the MNR you could apply for an educational license however more than likely you will be required to take the skunk to a license wildlife sanctuary/zoo or custodian.

Descenting needs to be done as early as possible for the sake of the vet; however it is difficult to find one who will do it. Most will not descent after 2-3 months. Good luck.

Spaying and neutering are **mandatory** for skunks in captivity. Females are prone to severe health problems (often kidney related) due to heat stress after their first couple heat cycles. Additionally, skunks undergo dramatic personality changes when their hormones fluctuate and rage. The end result is biting and undesirable behaviorism in about 95% of male skunks and 75% of female skunks. Males should be neutered about 3months of age or as soon as the testicles become palpable and females spayed by 4 months of age. The anesthesia of choice, and the standard for exotic pets today, is called isoflourine. Layers of internal sutures plus surgical glue on the exterior tissue work best because many skunks chew their stitches. It takes 3-6 weeks after the surgery for the hormones to stabilize.

Zoonoses: These are diseases that can be transmitted from animals to humans. The causative agents are bacteria, viruses, parasites, and fungi. Possible zoonotic exposure can be eliminated by good personal hygiene and handling of animals in a prescribed manner. Frequent hand and glove washing with an approved disinfectant such as NOLVASANâ surgical scrub must be a priority that is strictly adhered to. Good hygiene will also prevent cross-contamination of non-zoonotic diseases from animal to animal. Do not have hand-to-eye or hand-to-mouth contact while working with animals or soiled animal caging, bedding, and accessories.

Handling animals in the prescribed manner for that species can prevent zoonotic exposure through bites, scratches, and abrasions.

Estivating: Skunks aren't true hibernators. They estivate, which means take longer naps, but they should get up regularly to eat....some every 2 days, most every day.

Skunks As Pets

Because they are a loving, happy animal, many people want them for pets. In both Canada and the United States it is <u>illegal</u> to keep or own any wildlife. There are, however, skunk farms in the US which have breed skunks for pets for 75 years, rabies free. They are bred different colours to distinguish them from 'wild' black and white skunks. Each province and state has different laws as to the legality of owning these animals. There are no skunk farms in Canada, however the Federal Government [Canadian Food Inspection Agency], in the past issued permits to import. It is unknown if it is still allowed to day. Please contact them if interested and don't forget to get the information on fees and quarantine. It is not cheap.

For more information Skunks As Pets Canadian representative Viv Cherrnoff can be contacted at ace2@ntl.sympatico.ca

More information:

There is always more to learn about rehabbing skunks. When you are ready give me a call. **519-842-9416** or lbeechey@rogers.com I am by no means an expert, however I have the contacts to a network of skunkers who are always willing to help.

Good luck and enjoy.







CARE OF SKUNKS PART 2

By Laurel A. Beechey lbeechey@rogers.com 519 842 9416

Part two is the compilation of all kinds of information on skunks, from a wide variety of sources. Because there is so little published researched information on skunks, skunk rehabbers and vets are sharing as much information as possible with each other.

It should be noted that the late Jane Bone Skunk Lady TM of Georgia has the best compilation of information on skunks,that I have found. Jane's expertise lies with domestically raised skunks, however they are physiologically no different that wild skunks, except perhaps in their varied colours. If you are having any physical/medical problems with a skunk please try "Skunk Stuff" written by Jane [complete information] is available on CD for the cost of shipping and partial information can be found in "Skunk Stuff" a link at http://sapcanada.cjb.com

For a skunk friendly veterinarian in Ontario, contact Dr. Dorothea Kanter at Edwards Vet Service Tillsonburg, Ont. 519-688-2123.

Skunk Haven Web Site is excellent for medical conditions and the staff are excellent is assisting. www.skunkhaven.net

Part 2 contains:

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Ringworm

Page 6 Skunk Biology 603 Dr. Jerry W. Dragoo, PHD and Gwen A. Dragoo, RVT, Mephitologists

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Descenting-More Information

Descenting at the proper age...4 weeks or under...is a non-surgical procedure and fairly simple, actually SIMILAR to "popping" a very large pimple--no cutting is involved at all. After that age, it becomes more difficult and requires anesthesia and is a much longer procedure. Most experienced vets won't descent past 6 weeks because of the unnecessary stress to the animal.

The glands MUST BE REMOVED.....not tied off, as some "experts" will try. Mother Nature is much smarter than Man and finds a way around this procedure and in just a matter of weeks, the glands AND JETS are fully functioning once again!!! Removal must also be COMPLETE, as it has been said, if any tissue is left, the glands are capable of regenerating themselves. A complete gland of a 3-4 week old kit looks much like a slightly filled water-balloon and the large part is about the size of an English Pea.

Distemper

Skunks can be infected by both Canine and Feline Distemper but can be inoculated for both. Note that many skunks have reactions and often must have antihistomines to countact the reactions. Ferret injections will be recommended however they are very difficult on the animal.

Rabies

According to Charlatan et al. (1991. Skunk rabies. in The natural history of rabies, 2 ed. [edited by George Baer]. CRC Press), rabies virus may occur in saliva before clinical signs begin. Generally in experimental rabies in skunks, virus occurs in saliva at or slightly before onset of clinical signs and persists for several days (maximum 6 days). The skunk may harbor the virus, but until it reaches the salivary glands, skunks cannot transmit the virus by biting. Clinical signs of rabies in skunks can last from 1-18 days before the animal dies.

There is no evidence of a true carrier state. Skunks cannot excrete the virus in saliva and remain clinically free of symptoms for long periods of time, nor do skunks recover from clinical signs and continue to excrete the virus.

Skunks, like most mammals, always die from rabies. Once the virus is shed in the saliva, a skunk can go as long as 6 days before showing any clinical symptoms of the disease. Then they die. The problem is that a wild skunk can be infected and harbor a latent form of the virus for up to 18 months (usually not longer than 2-6 weeks). It is not known yet what triggers the latent form to become virulent, and there is no way, yet, to detect the latent form in an animal. If you get bitten by an animal that has a latent form, it will not transmit the virus.

Animals can be exposed to and contract the virus at any time, usually through a bite (saliva). The amount of virus and the body part exposed have some affect on the time of incubation. Often times stress on the animal will help the virus become virulent. The stress of being in captivity or going to the veterinarian may cause an animal that is incubating the virus to became rabid. For an animal to contract rabies, it has to be exposed to another animal that is shedding the virus.

Jerry W. Dragoo, Ph.D.

Mephitologist, Museum of Southwestern Biology

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idragoo@unm.edu

Limping

Start with 250 MGS of Calcium and 500 MGS of Evening Oil of Primrose, but please let the vet check just to be sure.

You buy liquid Jalapeno Sauce or sprinkle ground Cayenne pepper on everything she eats....start with a little and increase and increase and increase.....but Jalapenos are better!!!! They even work for US and OUR joint problems!!!!

Paralysis

If paralysis seems to occur in the back end the skunk. This is quite terrifying as the skunk is unable to use their back legs. Scent is released as they do not have control of their rectal muscles. Feet are warm to touch and responsive. Tail is flat to the ground although is moved occasionally.

Water Therapy

Simulation?

Appetite/Food

Pain?

Treatment

Increase the calcium, the Taurine, and meat protein along with 2000 mg of EPO a day will get the skunk back up and walking again.

"I have gone through this and was able to get my skunk back up and walking in approx. 6 weeks. The treatment was 2000 mg EPO (Evening Primrose Oil) daily, 200 mg calcium (in addition to what he is receiving through diet), 50 mg Vitamin D, 1/4 tsp. Whey Protein Powder, give water therapy three times daily."-Viv Chernoff

Calcium Deficiency

-500mg a day until the start to improve, then cut it back to 50.

Liver problems

Terramycin Soluble Powder, for prevention of liver problems.

It has been used in the animal industries for eons. Terramycin is one of our oldest meds around I believe almost as old as penicillin. It was used quite successfully for many many years for our own maladies, but more modern "names" of meds took over. Progress is not always forward!!

When it was brought to our attention as a potential solution for liver problems, we began asking various of our vets their opinions and almost EVERY SINGLE ONE basically slapped their foreheads (I could have had a V-*!) and said, "I never even thought about Terramycin!)

It can be used either as a prophylactic measure or a curative, depending on the concentration given. It was use in a "three month on and three month off" regimen, as is stated in Skunk Stuff.

Kidney, Diabetes and other diseases note Skunk Stuff by Jane Bone



RECTAL PROLAPSE by

Jane Bone The Skunk Lady TM

When this occurs, a portion of the intestine from 1/4 to 2 inches long protrudes from the rectum. prolapse is not as bad as it looks. The first one I ever saw caused me to replace my front door after I came back from the vet's office as I did not bother to open the door before going through it.

The prolapse may be red or swollen and may not return immediately. Rinse with warm water, gently rub with Vaseline, Preparation H, Panalog (obtained from

your vet) or Sugar on the intestine while you slowly push small amounts of the intestine back into the rectum. It may take a while for the intestine to return to its normal place, but don't be alarmed if it seems to last forever. IT WILL EVENTUALLY GO BACK IN!! Unless your skunk is chewing at the tissue, it is not necessary to see a vet; however, if he is chewing at it, a vet must replace the intestine and possibly (we hope not, BECAUSE EVEN ONE TINY STITCH CAN DO NERVE

DAMAGE IN THESE DELICATE TISSUES!) place a purse string stitch to hold it in place. Until the prolapse is completely gone, replace kitty litter with newspaper and keep the prolapse greased.

There are times the prolapse appears as a red ball, much like a cherry tomato. Here again use the same as above and it will go in.

Rectal prolapse is caused by diarrhea, (one of the signs of round worms) and bad diet. Due to fluid loss, the intestine shrinks and the body can no longer hold the intestine in place. The intestine must be stretched back to full size to stay where it belongs. High fiber foods plus Fiberall or Metamucil added to the food will help the prolapse to go back inside and minimize intestinal irritation. It is not unusual for baby skunks to have a prolapse, they don't seem to know that it is abnormal and therefore don't bother it. Normally you will be able to push the intestine back into the body. In the rare case that improper descenting is the cause, Panalog Ointment should be used until healing takes place.

More Information

The typical causes of prolapse are diarrhea in young skunks and chronic diarrhea in adult skunks, constipation, improper descenting, worms or other GI parasites, viruses and bacteria. If the problem is worms the skunk will push excessively to get them out of its system. This may lead to successive recurrence of the prolapse until all of the worms are passed.

You will need - nail clippers, a large towel or small blanket, warm water, *Preparation-H*, lubricant gel (*KY Jelly* or *Vaseline*), and a comfortable place to sit.

- 1. Stay calm, rectal prolapse is not life threatening if treated early.
- 2. Cut your fingernails short, wash with (anti-bacterial) soap and water.
- 3. Gently clean the exposed rectum and intestines with clear warm water.
- 4. Sit on a sturdy chair or the floor, put a towel or blanket on your lap, and wrap the skunk to keep it calm and under control. Give a small amount of food if it helps calm the skunk.
- 5. Mix small amounts of the *Preparation-H* and lubricant gel together on your fingers then rub onto the exposed rectum and/or intestines.
- 6. Slowly massage the rectum/intestines back in. It DOES take a LONG time. Add more *Preparation-H* and lubricant gel as needed to aid in gently pushing the rectum/intestines back in.
- 7. When the rectum/intestines are completely back inside, hold them in for a short time, keep the skunk calm.

Watch for recurrence for the next several hours and check the skunk regularly over the next few days.

If this does not work, get to a vet. The vet will have to put a purse-string stitch in for a few days to hold the intestines in place while the insides heal. Change to a high liquid diet of broth, soups, pureed baby food, etc., while the purse-string is in place.

Keep the skunk calm and separate from other animals and children, possibly for several days.

Change the skunk's diet - NO fruits or fresh veggies for one-to-two weeks, feed cooked vegetables, pasta, high quality dog food, cooked chicken or turkey, cereals, pureed baby food, canned pumpkin, tofu, etc. Start back on fresh veggies and fruits slowly, make sure food is cut in small pieces. High fiber foods and supplements like *Metamucil* may help prevent the straining which can lead to prolapse.

If there is a risk of infection use *Panalog* (from vets), an antibiotic ointment, applied inside the rectum after the intestines are back in. A small amount will help prevent infection and aid in reducing that inflammated bowel so that it will reduce and return to it's proper place.

Also to help stop from straining get *Centrine* tablets from the vet; suggested dose for a skunk is 1/2 tablet twice daily for two to three days.

An old remedy is to wet the rectum/intestines with warm water, then coat with sugar; it will shrink the prolapse. You can also make a thin sugar paste and coat the exposed rectum. This has shown excellent results. Can sometimes take 30 minues

Another method is a pan of COLD (Ice) water. Stick the skunk's butt in water and the intestines should go back in (this may not work in all cases).

Care should be taken with any skunk known to have prolapse problems. They should be separated from other animals as soon as prolapse is noticed and should remain separated for several days after the prolapse incidents stop

Skunk Heat Cycle

The Birds and the Bees of Skunks BY DR. Jerry W. Dragoo, Ph.D.

Skunks are induced ovulators. In other words the eggs are shed within a few hours of copulation. Because skunks are monestrous (one estrous cycle per year) they cannot afford to shed eggs before copulation. This strategy ensures that the eggs will be fertilized. High levels of luteinizing hormones (LH) are required for ovulation to occur. LH is produced by the anterior pituitary gland which is controlled by the hypothalamus. The hypothalamus requires environmental stimuli before the signal to turn on production of LH can occur. That environmental stimulus is an aggressive male.

The male has to be aggressive in order to stimulate the female's hypothalamus. I would not call the aggression fighting but rather foreplay. Unlike the Klingon example, none of the participants would be. Seriously injured. It would require too much energy to heal wounds and to develop an embryo. That would be disadvantageous.

In skunks, as in all mammals, sperm are cheap. Males only have to inseminate the female and their work is done. So it is to the male skunk's advantage to find as many females as possible. The females, however, develop the embryo, give birth and raise the young, so they give much more invested in each offspring than does the male After copulation fertilization the females become extremely aggressive toward males, and will do serious damage to a male in order to protect her investment.

There are times when a female skunk will produce a litter later in the year, but usually is after she has lost a previous litter; or was not "stimulated" enough to induce ovulation, or was a young, animal. The heat cycle in these animals as a result will be spread out over several months. If a female has not been stimulated to ovulate, she may remain in estrous for a longer period of time.

Skunks have many natural predators. The young and weak also can be removed from the population by disease and however, a result of Natural Selection. Fitness is not measured by the strength of an animal but rather it's ability to produce viable offspring's. If skunks were spontaneous ovulators, they would risk not producing young (getting their genes into the next generation) during their one breeding season. The animals that had induced ovulation were able to put more young (i.e., more genes) into the next generation.

Jerry W. Dragoo, Ph.D.,



Mephitologist, and Research, Assistant Professor at the Museum of Southwestern Biology, University of New-Mexico.

Ringworm

½ of face only.

Hair loss, skin white. Became swollen & lumpy. Not itchy

Skunk was very small, not normal growth. He had lost hair on back end earlier but it was growing back in when this condition started. They do not seem to be related. This was

diagnosed as ringworm but not while on the skunk. The rehabber [fortunately not me] also developed an unusual rash which lasted for months, it was finally diagnosed, treated and cured.

Skunk Biology 603

By

Dr. Jerry W. Dragoo, PHD and Gwen A. Dragoo, RVT, Mephitologists Copyright 1996 All Rights' Reserved

No, a skunk is not a skunk! It is much more complex and exciting than that. There are two species of Mephitis, four species of Conepatus, and three or more species of Spilogale. All of the species in a genus are more like each other than they are to any species in another genus. Therefore, the striped hog-nosed skunks (Conepatus chinga and C.[onepatus] humboldtii)in Argentina are more closely related to our white-backed hog-nosed skunks (C. leuconotus) than they are to the striped skunk (Mephitis mephitis).

According to those in the know, a species is the only real category in our classification system. All of the categories above the species level are man-made. For our discussion, a species is "a group of interbreeding natural populations that is reproductively isolated from other such groups." In other words a striped skunk (Mephitis mephitis) cannot produce baby skunks with a hooded skunk ([Mephitis] macroura) because they are different species.

Often when a species covers a large geographic area, different populations will be genetically adapted to their local environments. The populations of a species that lives in different habitats can be grouped into smaller units called subspecies. About a million or so years ago (The fossil record for skunks is not that good, so I'm guessing on the actual number of years), there was a single population that represented the genus Mephitis. Around that time, the population split into two populations. There are numerous ways for this to happen; I won't go into the details. One of these populations went north and the other went south. They encountered different environmental conditions as they moved from their starting point. They became genetically adapted (this is where Darwin's theory comes in) to their respective environments. As time went on, they tended to stay within their own groups and rarely traveled back and forth between the populations. Times were good. Both populations thrived and began to expand their range. About 10-30 thousand years ago, the two populations grew so much that they came in contact with each other. But by now both had undergone so many genetic changes that they were not able to reproduce with each other, even though they could live in the same place. These two populations today represent the striped and hooded skunks.

The various subspecies of striped skunks today have the potential to undergo the same process and eventually mature into new species. Individuals may continue to travel between populations and exchange genetic information and never become separate species. We will have to wait and see (don't hold your breath, it could take a few thousand years).

If we were to go back even further, say five to 10 million years, we would find a single population of skunks that represented what we recognize as the striped skunks and the spotted skunks. That population also split and gave rise to two new populations.

We already know what happened to the ancestor of the striped skunks. The same thing happened to the population that gave rise to the various species of Spilogale. We can go back even further, 10-15 million years and find a single population that gave us the genus Conepatus and the ancestor of the striped and spotted skunks.

We could just lump all of the skunks into a single genus, say Skunkus. But this classification would not convey much information about the evolutionary relationships among the skunks. Above the species level we try to classify organisms to reflect the evolutionary history, but it is done much the same way books in a library are arranged. The library contains books. The books are arranged

by subject; history, sci-fi, science. Each subject is broken down further. Science books can be arranged by chemistry, math, biology, etc., and each of these can be grouped into smaller units. Books about biology can be arranged into anatomy, ecology, and so on. We group species into genera because the members of a genus share attributes not shared by species in a different genus. We group genera into Families and Families into Orders. Genera in a family share attributes with each other, that are not shared by genera in other families. Let's take dogs, foxes, cats. and lions as an example. Each of the four groups represents a different genus Canis, Vulpes, Felis, and Panthera respectively. Dogs and foxes are similar and are grouped into the Family Canidae (family names end in -idae) and the cats and lions are similar and grouped into the family Felidae. These two families, however, do have things in common and are thus placed in the same order Carnivora, the carnivores. Keep in mind that the reason these groups have things in common is because somewhere back in time they all shared a common ancestor. The original carnivore population occurred about 60-65 million years ago and all of the diversity (dogs, cats, hyenas, weasels, bears, raccoons, skunks, etc.) we see in the Carnivora can be traced back to that ancestor.

You might want to get up and stretch your legs for about 10 minutes before we go into part two. Somewhere along the way I'm, sure you have heard that skunks are in the family Mustelidae. In other words, the genera Mephitis, Spilogale and Conepatus are grouped together in this larger category. Also in this family are the weasels, wolverines, badgers and otters. The mustelids are an interesting family in that they are very primitive compared to some of the other families in the order. If you compared a modern mustelid with the carnivore ancestor that occurred 60 million years ago, they would be very similar. When we classify animals, we look for similarities, but we try to find characters that are newly acquired for a particular group. For example, cats have retractable claws and razor-sharp back teeth. These characteristics are not found in primitive carnivores nor in other families of modern carnivores. Therefore, retractable claws and razor-sharp back teeth are derived characteristics that are shared among members of the cat family.

They share these characteristics because their common ancestor had these traits. The members of the Mustelidae are grouped on the basis of several characteristics associated with the teeth, as well as enlarged scent glands. The family is further divided into subfamilies. Weasels, minks, wolverines and the zorilla are in the subfamily Mustelinae (subfamily names end with -inae). Badgers are in the Melinae, otters in the Lutrinae and skunks in the Mephitinae. The characters that unite the mustelids however, do not fit the criteria we use to classify animals. Some of the characters associated with the teeth can be found in other families, such as the bear family or the dog family. This suggests that the trait may have arisen many times during the evolution of carnivores and does not represent a uniquely derived character for the mustelids. Some traits are primitive. The common ancestor of all the carnivores probably had scent glands, because all of the carnivores today have scent glands. However, they are enlarged in mustelids and extremely enlarged in skunks. Is this a result of common ancestry or convergent evolution as a result of similar ecological constraints? The problem is that there are no characters that we can say are unique to the Mustelidae that would enable us to unquestionably group all of the members into this family. In recent years, as genetic analyzes became more sophisticated, it started to look like the skunks may not have shared a recent ancestor with the rest of the family. This has been the primary focus of my dissertation. There is a lot of genetic data (some of which I have collected) that indicate that the family Procyonidae (raccoons, ringtails) shared a common ancestor with the rest of the Mustelidae, after the skunk populations separated. If our classification system is going to reflect evolutionary relationships, then we cannot recognize the skunks as members of the Mustelidae family. In addition, one of the badgers, the Oriental stink badger, has been misclassified and actually shared an ancestor with the skunks. What I am proposing to do is elevate the subfamily Mephitinae to a separate family, the Mephitidae. This family will include the genera Mephitis, Spilogale, Conepatus, and Mydaus (stink badger).

What does this mean to the average person on the street? Not much, however, the scientific study of organic diversity and it's classification make the diversity accessible to the other biological disciplines. Without it, most of them would be unable to give meaning to their findings. Understanding evolutionary patterns and processes may enable us to develop management strategies to conserve and protect the declining bio diversity around us. It certainly allows me to appreciate more the attributes found in skunks and encourages me to continually strive to protect those skunk species that are in danger of extinction. I realize there is a lot packed into this message, but there are several years of study that were left out as well!

Have you HUGGED your Skunkasaurus Rex Today?

SKUNK TRIVIA

By Jane Bone The Skunk Lady TM

- 1. Skunk's top speed is approx. 6 Miles Per hour.
- 2. Baby skunks are called kittens.
- 3. Skunk kittens are born hairless, eyes closed, ears closed, looking somewhat like small seals. You can sometimes tell what color and how they will be marked at time of birth. You can tell what color and how they will be marked at birth.
- 4. Female skunks can carry fertilized eggs for up to one year before conceiving if she feels the conditions are not favorable to raising a family.
- 5. Mother skunks have between 1 to 5 kittens normally in a litter, but some female skunks have had as many as 19 kittens in a single litter.
 - 6. Skunks have poor eyesight with an optimum distance of about 3 feet.
 - 7. Skunks' eyes are made for the evening hours and do not respond well to bright lights.
- 8. Skunks have made up for the lack of eyesight by having keen hearing and a wonderful sense of smell. Every skunk smells---- it has a nose!
 - 9. There are three types of skunks: 1. Striped Skunk. 2. Hog Nosed Skunk. 3. Spotted Skunk.
- 10. Only the striped skunk likes people, and is successfully kept as domestic pets like the dog or cat.
- 11. Skunks are not born with RABIES. Some have lived to be 23 years of age with no signs of Rabies. CDC states that there is no true carrier state of Rabies in any mammal. The last time I knew skunks were mammals!
- 12. Wild skunks are the farmers' friends. They control rodents, insects, snakes and turtles from ruining fishing holes.
- 13. Not all skunks are black and white. Some are all white with pink eyes, all white with dark eyes, brown, gray, mauve, blonde, beige and white.
- 14. Skunks are born and bred right here in the USA, they are not from a foreign country as your skunks Great, Grand-Pappy and Mammy waved at Columbus as he came ashore for the very first time. Heck, they even played with the dinosaurs.
- 15. Domestic Skunks live between 10 to 12 years according to the experts, however, more and more skunks are staying around for 20 + years or more.
 - 16. Skunks that live in the wild only live approx. 2 years [I have been told].
- 17. Some skunks sweat to the point they are soaking wet and smell like they have just run a 10 mile race in 90 degree weather.
 - 18. Baby skunks start opening their eyes between 19 and 23 days old.





STRIPED SKUNK NORMALS

Physiological reference ranges calculated for: Both sexes combined All ages combined
Sample results submitted by 12 member institutions.

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Reference Ranges for Physiological Data Values

Test	Units	Mean	St. Dev.	Minimum Value	Maximu m Value	Sample Size ^a	Animals ^b
WHITE BLOOD CELL COUNT	*10^3/µl	8.019	2.926	2.200	14.20	27	24
RED BLOOD CELL COUNT	*10^6/µl	8.21	1.22	6.00	10.20	14	14
HEMOGLOBIN	g/dl	12.5	1.8	7.9	15.3	19	18
HEMATOCRIT	%	41.0	5.9	30.0	52.0	26	23
MCV	fL	49.7	6.1	41.5	61.3	14	14
МСН	pg/cell	15.6	1.8	13.3	18.7	14	14
МСНС	g/dl	31.2	1.6	26.3	33.8	19	18
PLATELET COUNT	*10^3/µl	267	120	143	437	7	6
NUCLEATED RED BLOOD CELLS	/100 WBC	1	1	0	1	2	2
RETICULOCYTES	%	0.9	1.0	0.0	2.0	3	2
SEGMENTED NEUTROPHILS	*10^3/µl	3.970	2.063	1.310	7.650	22	22
LYMPHOCYTES	*10^3/µl	3.105	1.678	0.594	6.710	22	22
MONOCYTES	*10^3/µl	0.193	0.093	0.056	0.375	21	21
EOSINOPHILS	*10^3/µl	0.374	0.443	0.098	1.700	18	18
BASOPHILS	*10^3/µl	0.044	0.058	0.000	0.121	4	4
NEUTROPHILIC BANDS	*10^3/µl	0.221	0.381	0.000	0.900	5	5
CALCIUM	mg/dl	10.0	1.0	7.7	12.3	21	20
PHOSPHORUS	mg/dl	5.9	2.2	2.7	10.8	19	18
SODIUM	mEq/L	148	9	127	169	19	18
POTASSIUM	mEq/L	5.1	0.7	3.8	6.3	20	19
CHLORIDE	mEq/L	112	8	99	135	16	16
BICARBONATE	mEq/L	27.0	0.0	27.0	27.0	1	1
CARBON DIOXIDE	mEq/L	25.9	4.3	21.0	33.0	7	7
MAGNESIUM	mg/dl	1.93	0.64	0.65	2.60	7	7

	1			l			
BLOOD UREA NITROGEN	mg/dl	26	12	9	58	24	23
CREATININE	mg/dl	0.9	0.6	0.5	2.9	23	22
URIC ACID	mg/dl	1.1	1.1	0.0	2.8	5	5
TOTAL BILIRUBIN	mg/dl	0.1	0.1	0.1	0.3	16	16
DIRECT BILIRUBIN	mg/dl	0.0	0.0	0.0	0.1	2	2
INDIRECT BILIRUBIN	mg/dl	0.1	0.1	0.0	0.2	2	2
GLUCOSE	mg/dl	113	51	45	259	25	24
CHOLESTEROL	mg/dl	178	85	0	314	19	19
TRIGLYCERIDE	mg/dl	100	77	24	303	10	10
CREATINE PHOSPHOKINASE	IU/L	590	319	128	1235	11	11
LACTATE DEHYDROGENASE	IU/L	734	549	303	1923	8	8
ALKALINE PHOSPHATASE	IU/L	62	48	7	168	21	21
ALANINE AMINOTRANSFERASE	IU/L	99	79	29	303	25	24
ASPARTATE AMINOTRANSFERASE	IU/L	78	22	47	129	20	20
GAMMA GLUTAMYLTRANSFERASE	IU/L	4	3	0	9	11	11
AMYLASE	U/L	238	237	0	843	13	13
LIPASE	U/L	444	243	199	679	4	4
TOTAL PROTEIN (COLORIMETRY)	g/dl	6.4	1.0	4.4	8.2	23	22
GLOBULIN (COLORIMETRY)	g/dl	3.4	1.0	1.2	4.8	16	16
ALBUMIN (COLORIMETRY)	g/dl	3.4	0.7	2.3	4.5	17	17
Body Temperature:	°F	97.0	1.8	95.0	98.6	8	7
Weight: 4.5-5.5 years age	Kg	3.106	0.848	2.500	4.740	13	3

International Species Information System 12101 Johnny Cake Ridge Road Apple Valley, MN 55124 Ü.S.A.

www.worldzoo.org

^a Number of samples used to calculate the reference range.

^b Number of different individuals contributing to the reference values.

Drugs that have been used in treating domestic skunks*

*The information listed here has been gathered from data collected from various skunk owners.

Do not presume that these drugs are safe for you individual skunk. Adverse long term effects are unknown and are a risk. Always use caution when administering steroids.

Always consult a veterinarian before administrating medications to your skunk.

Drug Name	INGREDIENT	INDICATION	Dosage
Advantage 9 for	Imidacloprid	Flea control	½ tube
cats			
Afrin nose	Oxymetazoline	For the temporary relief of nasal congestion due to colds, hay fever or	
spray / drops	Hydrochloride	other upper respiratory allergies, or associated with sinusitis. Shrinks swollen nasal membranes	
Albon	Sulfadimethoxine	Treatment of sulfadimethoxine-susceptible bacterial infections. Coccidia	12.5 to 25 mg per pound of body weight
Amoxi drops	Amoxicillin trihydrate	Treatment of infections caused by susceptible strains of organisms as follows: respiratory tract (tonsillitis, tracheobronchitis) caused by Staphylococcus aureus, Streptococcus species, Escherichia coli, and Proteus mirabilis; genitourinary tract (cystitis) caused by Staphylococcus aureus, Streptococcus species, Escherichia coli, and Proteus mirabilis; gastrointestinal tract (bacterial gastroenteritis) caused by Staphylococcus aureus, Streptococcus species, Escherichia coli, and Proteus mirabilis; bacterial dermatitis caused by Staphylococcus aureus, Streptococcus species and Proteus mirabilis; and soft tissues (abscesses, lacerations, and wounds) caused by Staphylococcus aureus, Streptococcus species, Escherichia coli, and Proteus mirabilis.	5 mg per pound of body weight twice daily.
Baby Aspirin	Acetylsalicylic acid	Pain	1/4 tablet
Batril	Enrofloxacin	This medication may be used in either dogs or cats to combat different types of infections, especially those involving Pseudomonas. Enrofloxacin is also active against Staphylococci, and thus is commonly used for infections of the skin.	

Clavamox drops	Amoxicillin Trihydrate;	Treatment of skin and soft tissue infections such as wounds, abscesses	6.25 milligrams (equivalent to 5
	Clavulanate Potassium	cellulitis, superficial/juvenile and deep pyoderma due to susceptible strains	milligrams amoxicillin and 1.25
		of beta-lactamase (penicillinase) producing Staphylococcus aureus,	milligrams clavulanic acid per pound
		non-beta-lactamase Staphylococcus aureus, Staphylococcus species	body weight) twice daily.
		Streptococcus species, and E. coli. For treatment of periodontal infections	
		due to susceptible strains of aerobic and anaerobic bacteria.	
Depo Medrol	Methylprednisolone acetate.	Treatment of inflammation and related disorders in cats; treatment of	10 to 20 milligrams intramuscularly
		allergic and dermatologic disorders in cats; and as supportive therapy to	
		antibacterial treatment of severe infections in cats.	
Dermalone	Nystatin,	Topical Antibiotic-Steroid	
	Neomycin sulfate,		
	Thiostrepton, Triamcinolone		
	acetonide		
Dexamethasone	Dexamethasone	The drug is indicated as an anti-inflammatory agent	0.125 to 0.5 milligrams depending on
			the severity of the condition
Droncit	Praziquantel	For removal of feline cestodes Dipylidium caninum (tapeworm) and	4 pounds and under, (11.5 milligrams);
	_	Taenia taeniaeformis (tapeworm).	5 to 11 pounds, (23 milligrams);
			over 11 pounds, (34.5 milligrams).
Drontal	Praziquantel + Pyrantel	Tapeworms, hookworms, ascarids, whipworms	
	Pamoate + Febantel		
Endosorb	Activated Attapulgite	Anti-diarrhea	
Evict	Pyrantel Pamoate	For removal of large roundworms (T. canis and Toxascaris leonina) and	Equivalent to 2.27 or 4.54 milligrams
		hookworms (Ancylostoma caninum and Uncinaria stenocephala).	of pyrantel base per pound of body
El C.II.	p : :11: G		weight.
Flo-Cillin	Penicillin G	Bacterial infections	
injection Histacalm		And third and in the constitution of the terminal	
		Antihistaminic, emollient, anti-itch shampoo	
Shampoo		Acceptance	
Isoflorine gas		Anesthesia	
Laxatone		A laxative and lubricant for hair ball removal and prevention	
Nemex 2	Pyrantel Pamoate	For removal of large roundworms (T. canis and Toxascaris leonina) and	
		hookworms (Ancylostoma caninum and Uncinaria stenocephala).	
Nolvadent Oral	Chlorhexidene	Destroys bacteria. For cleaning oral wounds, scrapes, sores	
Liquid			

Drug Name	INGREDIENT	INDICATION	Dosage
Panacur	Fenbendazole	For control of large strongyles (Strongylus edentatus, S. equinus, S. vulgaris), small strongyles, pinworms (Oxyuris equi), and ascarids (Parascaris equorum) in horses. For treatment of encysted mucosal cyathostome (small strongyle) larvae including early third stage (hypobiotic), late third stage, and fourth stage larvae in horses.	2.3 milligrams per pound of body weight (one 2.5-gram fenbendazole syringe for a 1,100-pound horse). For foals and weanlings (less than 18 months of age), 4.6 milligrams per pound of body weight (one 2.5-gram fenbendazole syringe for each 550 pounds of body weight). 4.6 milligrams per pound of body weight (10 milligrams per kilogram) daily for 5 consecutive days.
Pediatric Benedryl	Diphenhydramine HCI	Antihistamine	
Prednisone	Prednisone	It is used for conditions requiring an anti-inflammatory agent	0.25 to 1.0 milligram per pound of body weight
Strongid T	Pyrantel Pamoate	For the removal and control of infections from the following mature parasites: Large strongyles (Strongylus vulgaris Strongylus edentatus, Strongylus equinus), small strongyles pinworms (Oxyuris), and large roundworms (Parascaris)	Equivalent of 3 milligrams pyrantel base per pound of body weight.
Torbutrol tablets	Butorphanol Tartrate	For the relief of chronic nonproductive cough associated with tracheto-bronchitis, tracheitis tonsillitis, laryngitis, and pharyngitis associated with inflammatory conditions of the upper respiratory tract.	0.25 milligram of butorphanol base activity per pound of body weight.
Valium	Diazepam	Used to relieve anxiety, muscle spasms, and seizures	2.5 mg
Winstrol tablets	Stanozolol	Anabolic steroid	2 mg tablet. Administered orally to cats 1/2 to 1 tablet twice daily for several weeks.

Vitamins/herbs	INGREDIENT	INDICATION	Dosage
Mephyton, Vitamin K1		Used to prevent bleeding. Given for accidental rat poisoning	5 mg
Milk Thistle		Protects and regenerates the liver	
Rescue Remedy	Star of Bethlehem: For trauma and shock. Clematis: For the tendency to "pass out", and unconsciousness, being 'far away.' Cherry Plum: Fear of mind giving way, verge of breakdown, anger. Impatiens: For irritability, tension and fidgety. Rock Rose: For frozen terror and panic.	Stress relief	
Derm Caps	A concentrated Fatty Acid dietary supplement	Skin and Coat Conditioning, Reduce Inflammation Dry Skin, Pruritis	
Vitamin E		Major anti-oxidant nutrient; retards cellular aging due to oxidation; supplies oxygen to the blood which is then carried to the heart and other organs; thus alleviating fatigue; aids in bringing nourishment to cells; strengthens the capillary walls & prevents the red blood cells from destructive poisons; prevents & dissolves blood clots; has also been used by doctors in helping prevent sterility, muscular dystrophy, calcium deposits in blood walls and heart conditions.	
Vitamin D		Good for house skunks getting no sun	

Vitamins/herbs	INGREDIENT	INDICATION	Dosage
Taurine	Amino Acid	Clinically, taurine has been used with varying degrees of success in the treatment of a wide variety of conditions, including: cardiovascular diseases, hypercholesterolemia, epilepsy and other seizure disorders, macular degeneration, Alzheimer's disease, hepatic disorders, alcoholism, and cystic fibrosis.	250 mg
Colloidal Silver		A natural antibiotic and healing agent. Also used for its anti-fungal and anti-viral properties.	
Valerian		A powerful nervine, stimulant, carminative and antispasmodic. The drug allays pain and promotes sleep	
Acidophilus		Works as an intestinal cleanser. Also helps prevent fungus, diverticulosis, acne, and bad breath. It helps in the absorption of calcium as well as other minerals.	
Garlic		Known as a natural anti-biotic. This anti-oxidant is also believed to help lower cholesterol	
Lecithin		Contains Choline & Inositol which are essential for the breakdown of fats and cholesterol. It helps prevent arterial congestion, helps distribute body weight, increases immunity to virus infections, cleans the liver and purifies the kidneys.	

Vitamins/herbs	INGREDIENT	INDICATION	Dosage
Ginger	Mineral	An herbal remedy for asthma and coughs related to inflammation or allergies. Ginger has been used to treat nausea, indigestion, cramps, migraine headaches and to lower blood cholesterol and as a cleanser. Builds and maintains bones and teeth; regulates heart rhythm; eases insomnia; helps regulate the passage of nutrients in & out of the cell walls; assists in normal blood clotting; helps	
Vitamin B6		maintain proper nerve and muscle function; lowers blood pressure; important to normal kidney function and in current medical research reduces the incidence of colon cancer, and reduces blood cholesterol levels. Necessary for the synthesis & breakdown of	
		amino acids, the building blocks of protein; aids in fat and carbohydrate metabolism; aids in the formation of antibodies; maintains the central nervous system; aids in the removal of excess fluid of premenstrual women; promotes healthy skin; reduces muscle spasms, leg cramps, hand numbness, nausea & stiffness of hands; helps maintain a proper balance of sodium & phosphorous in the body.	
Hartz Cat Vitamins	Taurine	Good general vitamin with Taurine	Follow directions for cat weights

Vitamins/herbs	INGREDIENT	INDICATION	Dosage
Vitamin 12		Helps in the formation & regeneration of red	
		blood cells, thus helping prevent anemia;	
		necessary for carbohydrate, fat & protein	
		metabolism; maintains a healthy nervous	
		system; promotes growth in children;	
		increases energy; needed for Calcium	
		absorption.	
L-Carnitine		A "free amino acid" which has been found	
		to improve fat metabolism in the heart and	
		other organs and tissues,	
		reduces Triglyceride and cholesterol levels,	
		improves heart muscle tolerance, prevents	
		irregular heartbeat and	
		angina, provides more energy for the heart	
		and helps lower blood pressure.	
Evening Primrose oil		Promoted for a wide variety of ailments	
S		including reduction of premenstrual and	
		menopause syndrome symptoms, weight loss	
		without dieting, hypertension, improved	
		lipids, rheumatoid arthritis, multiple sclerosis.	
Flax seed oil		Omega-6 and Omega-3 fatty acids are	
		known to play important roles in the	
		formation of prostaglandins. Prostaglandins	
		are important cellular regulators which control	
		inflammatory processes in the body. Flax seed	
		oil, which contains large amounts of omega-3	
		fatty acids and useful amounts of omega-6	
		fatty acids, may be a helpful adjunct in	
		protocols which deal with Cardiovascular	
		disease, Hypertension, Arthritis and other	
		inflammatory disorders, Psoriasis and other	
		skin problems, Cancer, Diabetes and Kidney	
		disease.	
Pet-Tabs	Vitamin mineral supplement		

Pet Tinic	Vitamin mineral supplement with Iron	Anemia	
Zinc	Mineral	Necessary for protein synthesis; wound healing; vital for the development of the reproductive organs, prostate functions and male hormone activity; it governs the contractility of muscles; important for blood stability; maintains the body's alkaline balance; helps in normal tissue function; aids in the digestion and metabolism of phosphorus.	