Volume 2 Number 2
10 April 1992

VaraNews

VaraNews is published by Varanix©, the Varanid Information eXchange, dedicated to the responsible captive care of monitor lizards through education and the open exchange of all information pertaining to Varanidae

General Info

Foreign Affairs

Foreign membership rates are being modified due to postage costs. Currently, $8.04 is the mailing cost alone for a year. If you wish to continue receiving the newsletter via airmail, the yearly dues will be $15. Surface mail will remain at $12. Current memberships will continue to receive issues via airmail until the next renewal.

Member Questionnaire, Captive Management Data Sheets, Supplemental Mailings & SASEs

What follows are some project updates and boring-but-essential adminstrative info.

Member Questionnaire

The Varanix member list will be ready by the next newsletter. If you have not returned your copy and would like to be included, please do so. If you have not received the questionnaire, let Varanix know and one will be sent.

An entry for HerpNet, Internet and Compuserve ID has only recently been added to the form. If you wish to have this info included, please let Varanix know, either online, by letter or by phone.

Varanid Captive Management Data Sheets

Varanix membership has grown considerably since the project was mentioned many moons ago. Participants were to collaborate on data sheets detailing basic care requirements for each of the species commonly maintained in captivity. This information is intended for the potential/initiate varanophile who, while dedicated to providing her/his monitor with the best possible captive environment, is in search of a starting point.

As with any such community project, overcoming inertia is the most difficult hurdle. The increase in requests for information I have received about the captive care for Nile monitors, *V. niloticus*, has finally brought me to the first draft of a captive management data sheet for this species.

If you have experience with Nile monitors and would like to review the draft, let Varanix know. Please respond at this stage only if you will be able to return your comments within 3 weeks of receiving it. If you will not be able to review it, please wait for the finished product before requesting a copy. One reason is to finish the data sheet in time for the next issue of VaraNews. The other reason for this special request is explained in Supplemental Mailings & SASEs.

As much of the basic captive care information is common across the monitor family, this first data sheet should serve as a basis for the other species maintained in captivity.

These data sheets (probably 4 pages long) will be made available to any individual, herp society, or organization interested in receiving copies.

Supplemental Mailings & SASEs: Editor's Digression

As additional material is made available, the task of getting it to members in a timely manner is hindered by the cost of doing so. Only one additional sheet of paper can accompany VaraNews and still remain at 29 cents postage. Beyond that, the additional postage to mail an entire issue is between $30-35 extra. Supplemental membership-wide mailings are even more costly.

The goal has been to keep the membership dues as low as possible to cover the "unavoidable" costs of producing VaraNews, primarily paper, printing & mailing. Of the approximately 130-140 recipients of VaraNews, 85 are paid memberships. Others are exchange agreements (e.g., herp societies) or gratis (e.g., zoos). Several issues are also sent to members overseas where "soft" local currency makes even $10 a significant portion of annual income.

The break even point where dues offset fixed expenses is a paid membership of around 100-110. Until we reach this point, your "participation" will be required in sharing in the mailing costs for supplemental documents as they become available. This will amount to sending in a legal-size self-

addressed, stamped envelope and a note indicating which documents you desire. Extra inserts will continue to be included with VaraNews.

Efforts are underway to let more people know about VaraNews. Up to this point, I have been primarily concerned with collecting, compiling and getting the information into print. (A thousand thanks are extended to those of you who have contributed material, especially those of you who have done so on a regular basis. Thanks also to members who have sent in a few extra *zlotys* to help out with expenses.) Ways to reduce expenses, such as bulk postage, are also being investigated.

The long term goal is to make Varanix self-funding and maintain an 'activity level', (e.g., larger more frequent newsletter, more color, supplemental publications) according to its means.

Monitor Rescue Program (MRP)

The documents describing this program are available. Included are a description of the program (included with this newsletter), a copy of the release form, and a copy of the adoption contract. To recap, this volunteer program hopes to help place unwanted varanids in *permanent* homes of responsible, serious varanophiles.

A number of people have been involved in reptile adoption/relocation programs, either on their own or as part of a herp society effort. Wanda Olson, one such person, has volunteered to act as MRP Administrator, described on the accompanying program overview. (Refer to the panel on the right for address & phone number.)

The Nile monitor & You: Editor's Digression, Pt. 2

I am interested in any information, observations or anecdotes about the Nile monitor in captivity. There seems to be an increase in requests about keeping this species and it might be a good time to begin assembling more detailed information about captive care than will be included in the basic captive management data sheets.

This is your last issue of VaraNews if the mailing label says:

expires vol. 2 num. 2

No additional reminders will be sent due to the time and expense in doing so.

I am *especially* interested in hearing from you if you have experiences with "tame" specimens. When talking about monitors maintained in captivity, this species is often stereotyped as "nasty, aggressive, nervous, and never taming down". It is time to

VaraNews is the newsletter of Varanix, the Varanid Information eXchange. Varanix was founded to promote responsible care of varanids in captivity through education and the open exchange of information.

A primary function of the eXchange is to build a collective knowledge base that will serve to improve our understanding of Varanidae. The goal of these efforts is to improve their chances of survival, both in captivity and in the wild.

Editorial submissions:

May be in electronic form (preferred), typed, or written. PC/Mac diskettes acceptable, in ASCII, Word, WordPerfect or RTF format. Please indicate any special conditions of publication (e.g., withholding mention of name/organization or giving credit to a person/publication.

Back Issues:

Number 0: $1.50; 1(1) - 1(8), 2(1) - 2(2): $2.00 each

Inquiries and Membership:

One-year membership in Varanix is:

USA: $10
Foreign: 12 $US (surface), 15 $US (airmail)

Members receive VaraNews, which is published bi-monthly. VaraNews is free to zoos upon request and to herpetological societies participating in a newsletter exchange program.

Address all inquiries & memberships to:

Varanix
Greg Naclerio
8726D S. Sepulveda Bl. #243
Los Angeles, CA 90045 USA

Tel. (310) 768-8669

Messages may also be left via computer & modem on the following (Please specify "monitor" as the keyword or subject):

- Herpetology Online Network - (215) 464-3562
  Send mail to "Greg Naclerio"
- CompuServe: User ID - 71320,721
- Internet: 71320.721@compuserve.com
  gjn@triple-i.com

Editorial Review Board: Mark Bayless
Frank Braun
Robert Sprackland

Veterinary Advisor: Chris Cauble, DVM

Monitor Rescue Program Administrator:
Wanda Olson
4099 Timberline Dr.
San Jose CA 95121
(408) 274 9020
(408) 274 2555

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begin documenting those cases where the Nile monitor plays exception to this "rule". Photos would also be great.

If you have ideas for projects such as this, VaraNews is your forum to reach other readers. You may either post a brief notice in the Ads/Notices section or send in a few paragraphs describing the project.

Varanix Journal

The idea of doing a color, magazine-format journal has been tossing around for some time. Even though in the preliminary stages, it's worth soliciting your comments/ideas on the following topics:

- *Editorial material:* Original articles only. Suggestions thus far: a section on captive breeding; profiles on each species, including geographic information & distributions
- *Photographs/artwork:* Ideally, most articles will be accompanied by photos. If you can provide photographs, please let Varanix know: the species, color or b&w, slide/transparency/reflective (photograph), your conditions for publication.

  It would be great if all species were represented... it's up to You (collective).
- *Color separation scanning:* Preparation of color slides and prints for printing
- *Paper/Printing:* Recycled paper may not suffice for the photo pages; if you do know of one and can provide info and samples, please contact Varanix.

  Are you, or do you know of, a reliable printer experienced in color work?

As with any and all aspects of the Varanid Information eXchange, these ideas are subject to discussion, modification and revision.

Méli–mélo

This section is where you will find the various and sundry, including your amusing stories, quips and anecdotes.

Online

You may have noticed the references to the electronic information sevices, primarily HerpNet & Compuserve. What you have seen, and will continue to see, in VaraNews is a scant glimpse into this electronic world. There is a wealth of information out there if you have a computer and modem. And getting to it may not be as expensive as you think.

Each service has a "sysop" (system operator) who, among other things, is there to help you. (In addition to running HerpNet, Mark Miller is now the Reptile Section Leader for the Compuserve Pet Forum "GO PETS". Mark welcomes the challenge of even the most obscure herp-related questions.)

Once online, you will find others are more than willing to help guide you through. When you "post" (leave) a question in the general message area, it is available for anyone to respond to. Messages left by others are also available for you to do the same. (Private e-mail may also be sent between members.)

The following excerpt from HerpNet provides a glimpse of what life online "looks" like. Note the time when the question was posted and when answered.

#: 184277 S6/Reptiles/Exotic
27-Nov-91 17:31:22
Sb: #FEEDING MONITOR LIZARDS
Fm: Barry Richards 72260,2323
To: ALL

My wife and I recently picked up a rather large savannah monitor. He is rather docile but I understand that by getting him to eat pet food instead of live food that I can reduce his aggressiveness and insure that he is getting all the proper nutrients. I believe the pet store where I got him had been feeding him mostly mice and other live food. Does anyone have some tips on getting him switched over to pet food? The food I leave in his terrarium mostly gets stomped on.

#: 184620 S6/Reptiles/Exotic
28-Nov-91 04:20:10
Sb: #184277-FEEDING MONITOR LIZARDS
Fm: Mark Miller (Staff) 76702,1127
To: Barry Richards 72260,2323

The only sure way for the lizard to get all the required nutrients is to feed it whole rodents, anything else requires a good bit of planning and supplementation with minerals and vitamins. I'm not sure about the behavior changes you expect with an artifical diet — some people describe monitors "attacking" and "killing" lumps of dog food in the same way they would approach a live prey animal.

It may not be immediately apparent, but the computer could be one of your most effective captive husbandry tools by connecting you to a world-wide herpetological community. This holds a special value for focused interest groups, such as we varanophiles, whose numbers are few and geographic distribution far.

If the confusion, complexity and hype of computerdom has kept you from taking the step, drop me a line with your questions and I'll respond as time allows. (Please, no phone calls on this topic.) If you are already a member of the computer community and would like to help others get to that point, let Varanix know and we'll post your address/phone number for readers.

V. exanthematicus angolensis in San Diego

Julie Wiggins reports that there are 2 Angolan savannah monitors at the San Diego Zoo. Their diet consists of mice and rats (pre-killed). The monitors appear to be very shy, coming into the open for brief periods perhaps 2 or 3 times per week. The largest is about 4 foot TL and had last weighed in at 20 lbs. (Information provided by Sue Schafer of the SD Zoo Herp Department.)

"New" monitor

Y.D. Li Simin [(1987) 1990, Chinese Herp. Res. 1987:60-63] describes *Varanus irrawadicus* from the Wanding Valley, (ca 24N, 98E) Yunan Province, China. The species is based on a specimen collected in 1986. The new species differs from *V. bengalensis* in having small and narrow supraoculars; nostrils located midway between the eye and the tip of the snout; the ventrals in 75 transverse rows; and no chevron-shaped marking on the nape. It has an SVL of 515 mm and a 720 mm tail. The type is a male in the collection of the Kunming Institute of Zoology, Academia Sinica.

(This paragraph appeared in the Bulletin of the Chicago Herp. Society 26(12):282, 1991)

Tips & Tricks

How are you dealing with the environmental necessities of captive care for your varanid? This is where your helpful hints on topics as food/feeding, heating, water systems, habitat design and maintenance will be shared with the readership.

Vitamin Burritos

Discussed below is a technique for getting vitamin supplements to sick/undernourished animals and for mid-week, non-whole-rodent feedings (when it is not convenient to stop by the "food" store).

When whole animals (e.g., rats, rodents) are not offered, special attention must be paid to ensure a proper nutritional balance. Pieces of meat and chicken are high in phosphorus and low in calcium and require the use of vitamin supplements to approach a better balance.* My experience with powdered supplements is that they are not readily accepted by all monitors. The following method has been used with reasonable success.

Frozen beef or chicken is thawed in the microwave just to the point of changing from red to brown. The meat is then cut into flat, wide strips. (When using large chunks of meat, "pockets" are cut into them.)

The vitamin powder is poured on. For an undernourished animal requiring an extra nutritional "boost", a glob of Nutrical® is also squeezed on. The "meat tortilla" is then folded to enclose the vitamins. If powder gets on the outside, that spot is dipped in the warm meat juice. (The juice can also be dripped on the powder to help it stick to the meat.) The "supercharged" meal is then put in a low ceramic dish and placed into the habitat.

V. prasinus Z. S. Kukol

For young monitors who cannot eat a piece large enough to fold, roll one end of a small strip of meat in the vitamin powder and offer the other end. You can even "hide" the vitamin between the fingers exposing only the meat-only end. (Remember, we're talking about *small* monitors with this technique.)

* This is not to imply that there *are* acceptable, well-defined alternatives. Even a rodent-only diet is not typical of life in the wild for most monitors.

Monitor Medicine Cabinet

Wanda Olson suggests keeping the following supplies in a 'monitor' medicine cabinet.

Item/ Usage

- Tweezers/ Removing ticks, thorns, etc. and caseous material from inside of mouth
- Betadine® (povidone iodine) & hydrogen peroxide/ Disinfecting wounds or flushing infections, such as mouth rot
- Polysporin/ Antibiotic lotion for dressing wounds
- Styptic powder/ Stops bleeding
- Nail scissors & Emory board/ Nail care
- Monoject 412/ This curved tube syringe is used for mild force feeding, rehydrating, flushing mouth
- Q-tips/ Swabbing crusty areas around mouth, eyes, etc.
- Eye droppers & plastic-tipped syringes/ General use

Optional Item/ Application

- Nutrical®/ High-calorie dietary supplement in paste form; easily "syringed" into a malnourished lizard's mouth
- Gerber® meat-based baby food/ When force-feeding is required
- Pedialyte® (also in baby section)/ Rehydration

The 3 items below are listed for completeness ***with the explicit caution*** that you consult and work with a reptile-knowledgable veterinarian or qualified herpetologist before considering their use.

- Forte-Topical®/ Prescription antibiotic supplement for use on bad cases of mouth rot & eye infection; must be obtained from a veterinarian
- .150% pyrethrin spray (Adams® or Zodiac®)/ Spray effective against ticks & mites. Apply mineral oil around lizard's eyes. Spray entire body for mites or locally for ticks. Leave on 1 minute and thoroughly rinse animal in lukewarm water. Disinfect cage and throw away all bedding & furnishings that cannot be disinfected.
- Bovine Ivermectin/ Injectable de-wormer (suggested dosage rate of 2mg/kg). It may be administered orally, but is not as effective.

Portable Sundeck/Exhibition Cage

The cage described below has served as an outdoor sunning "parlor" for several summers to give my varanids a least one day a week in direct sunlight. It is 4 x 8 x 4 ft (~120 x 240 x 120 cm), made of heavy gauge screen and plywood, and was designed for both security from escape and portability for use as an exhibition cage at shows. The idea was to use "off-the-shelf" hardware to keep costs down.

Design Concepts

I always build based on the "4-foot" unit as plywood comes in 4 x 8 foot sections. This approach minimizes cutting and material waste. Also, other materials often come in 4-ft widths. The following materials, most of which are available at hardware stores, went into the cage's construction:

2 sheets 1/4-inch plywood (4 x 8-ft)

14-gauge galvanized wire screen, 32-ft L x 4-ft W, 1/2 x 3-inch mesh

wire cutting tool

swivel hooks

crimp rings/locking rings (like 1-in diameter round key rings)

36 carriage bolts (1/2 or 3/4-inch), nuts, washers

non-toxic, waterproof paint, white and black (or any dark color)

The wire screen is the type used for parrot and macaw cages... it's tough stuff. The downside is that it is expensive compared to less "robust" screen found in hardware stores; I paid $2.59 per linear foot (=$82.88 + tax). On the other hand, it is secure and doesn't require a frame around each section. (Check with stores selling these large birds; even if they don't have the screen, they may direct you to a supplier. As far as I know, it all comes from England.)

The 1/2 x 3 inch mesh is small enough to keep most anything larger than a hatchling contained. The heavy-duty 14-gauge wire allows the cage to be self-standing once assembled. The plywood serves several purposes:

• It provides the animal with a sense of security. Initially, the plywood was bolted 6-in (15 cm) up from the bottom of the screen to allow the ground to be hosed from one side and drain on the other. The "foot traffic" around the cage tended to startle the inhabitants. They were also inclined to rub, seeking a way out. The wood was lowered to 1/2 -in (1.2 cm) from the ground. This still allowed rinsing, but eliminated the disturbance and rubbing.

• Drafts are minimized and heat is retained on the interior. This allows the unit to be used on days when there is strong sunlight, but the air temperature may not be warm enough.

• It provides shade, especially important on hot days. As always, a hide spot is also provided.

• It helps prevent stray small fingers from poking through the wire at monitor "eye-level".

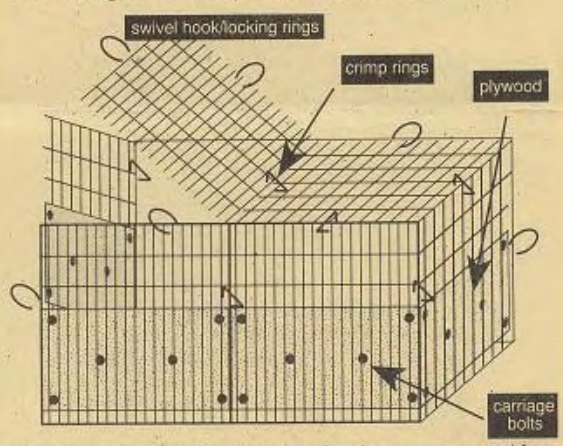
Construction

The 4-ft wide screen is cut into 4-ft lengths; you end up with 8 4 x 4-ft sections. (Recommendation: Purchase, unless you can borrow, the special cutters. Using a hacksaw or even saber saw is tedious and you will end up with a lot of scratches and cuts as you work down the wire.) The sharp points were filed after cutting.

The plywood is cut into 2 x 4-ft sections; 6 of these are needed. The side which is to be on the interior is sanded (to remove splinters) and painted white. The outside of the wood is painted black. This acts as a "solar heater", retaining heat from the sunlight. The inside is painted white to reflect light throughout the interior of the cage. (The interior is definitely warmer, though I haven't undertaken a study to determine the effect painting has.)

The carriage bolts are used to attach the plywood to each side section of the screen. The wood goes on the inside of the cage. The bolts are set so the nut and washer face out. You will end up with 6 sections having plywood (sides) and 2 without (top).

Once each 4 x 4-ft section is ready, the crimp rings or locking rings are used to connect sides that are to be folded together when breaking down the unit. The swivel rings are used for the entrance and to connect collapseable sections which will be separated when breaking the unit down. The cage described here breaks down into 2 folding sections; one being 3 sides, the other is 3 sides and the top.



The size of the crimp & locking rings has been exaggerated for the diagram.

A single crimp/locking ring is placed to denote which was used on each side. During construction, enough crimp/locking rings are used on each side to eliminate any "escape" holes

If portability is not required, more crimp rings can be used.

Furnishings

As with any habitat, permanent or otherwise, furnishings need to include a hide spot and water. Plastic cement mixing tubs (about $5 - 10, depending on size, at hardware stores) are handy. They are also good for use in indoor enclosures.

Pieces of slate and flagstone are scattered on the ground. (The cage itself is setup half over the lawn, half over a cement slab.) Lava rocks are positioned

at the "east" end; this allows the animals to climb up and catch a few extra minutes of late afternoon sun as it heads west.

Cost Savers

Some sides could be replaced by plywood. These sides may require some framing to maintain a degree of rigidity. This will cut down on ventilation, so care must be taken not to turn the cage into a solar oven.

Publications

This is where books, magazines, newsletter articles, etc. of interest to Varanix members will be discussed. Many people are looking for a source of good literature about varanids. If you know of any good publications, send in the title, author, publisher and publication date/issue. Comments on its focus and usefulness are most welcome.

Good news on the written front: a couple monitor-related publications have appeared recently.

Mertensiella #2: Advances in monitor research

Get the book. Send a 25 $US bank draft or money order to Wolfgang Bischoff, Museum Alexander Koenig, Adenauerallee 150-164, 5300 Bonn 1, Germany. The price includes surface mail; add 10 $US for air mail. Though a smaller-than-magazine format (6.5 x 9.5 inches), this softcover book is printed on a heavy paper, weighing in at over a pound.

This 268-page collection of 21 papers is a compilation of the majority of those presented at the "First Multidisciplinary World Conference on Monitor Lizards" held in Bonn, Germany in September 1989. Mertensiella is a supplement of DGHT, the German herpetological society that "links amateur herpetology and professional herpetology tightly together". If you've ever seen a bibliography on varanid-related publications, you will recognize most of the authors who presented papers at the conference.

Though a few articles are quite technical, there is a good deal of useful information for day-to-day captive care. The book will be discussed in more detail in the next issue.

Book Review

THE COMPLETE GUIDE TO KEEPING MONITORS, [anonymous] 1991. A Reptile News Press Publication, 17603 E. Tennessee Drive, Aurora CO 80017. Available from pet shops and specialty book dealers.

This 30-page booklet is a good introduction to keeping monitor lizards. It contains accurate and up-to-date information regarding the care, feeding, and captive requirements of these typically large lizards.

A concise explanation of the monitor's Natural History and range along with a brief overview of their biology introduces sections on housing, watering, heating, lighting, feeding, handling, health, general care, and sexing/reproduction.

Each section adequately introduces it's subject and contains accurate information and guidelines. No errors were detected by this reviewer, however more information would be useful in many sections (especially reproduction) before this work could be comfortably described as a *complete* guide. Although the booklet advises us that monitors are escape artists and heavy duty enclosures are required, the hinged box design illustrated is only a starting point towards a functional and secure cage for a large monitor.

The last two pages contain species specific notes, some with preferred temperature ranges and some simply listing the common name and a few remarks. No bibliography or index is provided. Throughout the text are some very useful tidbits that most herp enthusiasts learn the hard way, such as the danger of toxic mildew retardants in commercial silicone sealer that are absent from aquarium sealer.

Several references direct monitor owners to veterinarians when required... a philosophy that is far too rare and should be promoted.

The problem of maintaining a clean environment is addressed throughout many sections. As every monitor keeper knows, this is a considerable effort and every trick and tip is appreciated.

This is a nice booklet for those new to the hobby and should reduce early mortality of pet monitors. For those Varanophiles that have already evolved to the enclosure with a drain, timers, and pumps, this book may not be as valuable but should be on hand to lend out to those at the other end of the varanid learning curve.

Mark F. Miller

HerpNet, P.O. Box 52261, Philadelphia, PA 19115 USA
Modem: 215-464-3565, CompuServe: 76702,1127

Mating and Combat in *Varanus Indicus*

This one page report on "observations of copulation and combat in *V. indicus* on Guam" appeared in Herpetological Review 22(1):16-17. Two episodes were described.

Captive Breeding of the Timor monitor, *Varanus timorensis similis*

Pages 52 and 53 of Herp Review 22(2) describes the successful captive propagation of the Timor monitor. Three male and one female wild caught captives were housed together in a glass and wood terrarium. Mating occurred in January/February in each of the following 3 years with egglaying occurring February/March. Of the 5 eggs laid each time, surviving hatchlings were 0, 5, 5, respectively.

Herp Review is published by the SSAR. For information, contact Robert D. Aldridge, Dept. of Biology, St. Louis University, St. Louis MO 63103.

Monitor-ing Medicine

This is where medically-oriented articles will appear. Topics include, but are not limited to, preventative medicine and treatment & rehabilitation of sick animals.

Internal Parasite Detection

by Chris Cauble, DVM

Monitors, as with all reptiles, are very prone to internal parasite infestations. Parasites are the single most common cause of illness and death in the monitor lizards we see in our practice. Hundreds of nematode worms, protozoans and other parasites plague these lizards. The majority inhabit the digestive system in at least one stage of their life cycle, therefore a microscopic fecal analysis is critical for early detection and diagnosis. Some parasites can be detected in skin blisters or upon blood analysis, however most are detectable by the simple and effective fecal analysis. The fecal analysis will be discussed here, and specific parasite identification will be reserved for a later date.

No one single medication will kill all parasites. Dozens of dewormers are used to treat monitors, and due to their toxicity, multiple dewormers cannot be used simultaneously. Therefore, it is critical to identify the specific parasites and treat with the proper deworming medication. Routine deworming is only effective if the specific parasite problems are identified first.

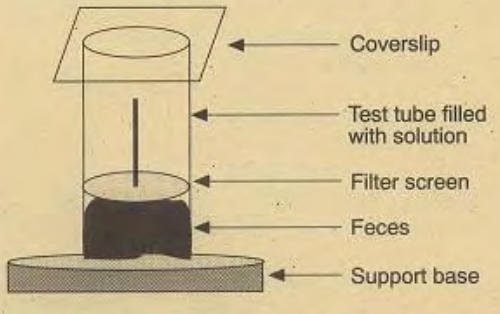
The fecal sample must be fresh, soft, and collected and analyzed within 48 hours. You must insure your specimen is indeed feces, and not food, or urates stained by feces. If there is a delay between collection and analysis, the sample should be kept refrigerated. In general, if the sample is soft and larger than a penny it is sufficient for analysis.

The specimen is first evaluated on color, smell, form, consistency and grossly visible digestion. Abnormal color may indicate a variation in diet or bacterial enteritis. Foul smell is indicative of a bacterial infection. Loose form and poor digestion are common with parasite infestations.

Adult worms rarely leave the intestines, so we are primarily looking for the eggs and larvae of worms or live protozoans. This requires a good microscope with at least 100X magnification. If you do not have access to a microscope, your veterinarian can perform the analysis for you.

For the microscopic exam of a direct smear, a very small amount of fresh feces is picked up with a toothpick or similar small stick and smeared on a microscope slide. With a drop or two of distilled water added, the sample is easily mixed and smeared. You should be careful not to get too much feces on the slide, for it will be too thick for the microscope light to penetrate. When viewing the direct smear, the digestion is evaluated as you search the entire slide for moving protozoans, such as *Giardia* and *Amoebae*, larvae (such as *Strongyloides*), and flukes. These parasites are not detectable by the fecal floatation method discussed next.

The fecal filtration and floatation is a critical step to quantify a parasite infestation, as well as to detect ova (eggs) of worms that are in such small numbers they would be missed by the direct smear. Commercial fecal analysis kits are available (Ovatector® and Fecalyzer®) and make the procedure simple, but are not necessary. A gram of feces, about the size of a quarter, is placed into a test tube and mixed with the floatation solution with a stirring stick. The mixture half fills the test tube. Floatation solution is merely salt water, commercially available as silver nitrate solution. However, ordinary table salt mixed with distilled water at room temperature until saturated would suffice. Objects, such as parasite eggs, become more buoyant in salt water and float faster to the surface. A small screen is pushed down on top of the feces in the solution to hold the large pieces of feces and allow the small parasite ova to float through. The tube is then completely filled with floatation solution with the fluid level meniscus rising above the edge of the test tube. A microscope cover slip is placed on top in full contact with the solution. Within fifteen to thirty minutes, the parasite ova float to the surface and stick to the cover slip. At this time the cover slip is gently removed and placed on a slide and viewed microscopically at 100X power. You should always view the entire extent of the slide, for often only one egg will appear.



Since internal parasites shed their eggs in cycles, a negative result is not conclusive. If the clinical signs in your monitor indicated parasitism is likely, multiple fecal analyses are recommended. You should consult your veterinarian, journals and books for specific parasite identification.

Ads / Notices

Reasonable-length line ads are free and should relate to the audience of this newsletter. Notices will be included as space allows. Varanix is not responsible for the quality of merchandise advertised and reserves the right to refuse any ad deemed inappropriate. Consumers are encouraged to inform Varanix of their satisfaction or dissatisfaction with a product or service. Your comments will remain confidential.

Varanix Coffee Mugs

On one side is the Varanix logo in black with the monitor in green. The other side has the text piece shown below, with all characters in black except the first letter of each species, which is also in green.

COST: $5.95 per cup. S&H: Add $3.50 for the first cup and $1.50 for each additional cup. Please allow 3 weeks for delivery. (These shipping rates are for the US only. Overseas: Contact Varanix if you are interested.) .

100% of the profit is used to fund projects and expenses of Varanix.

komodoensismertensiprasinusvariusexanthematicuspanoptes
rudicollisindicusglauertisalvadoriikordensismitchelli
acanthurusprimordiusdumeriliiflavescensrosenbergi
timorensisbrevicaudagiganteusglebopalmaspenceri
albigulariscaudolineatusniloticusolivaceusgriseus
tristiskingorumseminexgouldiisalvatoreremiusgilleni
karlschmidtiocellatusnebulosustorribengalensispunctatus

§ WANTED §

1.1 Argentine black and white tegus, *Tupinambis teguixin*, for captive breeding. Specimens must be healthy and flawless. Joel Shaner (804) 847-7964.

Information on Dumeril's (*V. dumerili*) or black roughneck (*V. rudicollis*) monitors. Also information on incubation of monitor eggs, such as temperature, humidity, substrate, reports on successful/unsuccessful hatchings. Mike Fost, Zoo Atlanta Reptile House, 800 Cherokee Ave., SE, Atlanta GA 30315-1440. (404) 987-3933

GUEST SPEAKERS wanted for Minnesota Herp Society: Please give me a call if you would consider speaking about monitors at one of our monthly meetings. Bill Moss (612) 488-1383.

§ PUBLICATIONS §

Write or call for a free booklist from the following vendors unless otherwise noted.

1991 Animal Directory of the U. S. A listing of 1200+ breeders/dealers of domestic & exotic animals, equipment & supplies. $19.95. Free ad listing w/purchase. FAUNA CLASSIFIEDS, 555 Vista Rio Court, Woodbridge, CA 95258

Herpetology Books - Paul Gritis, 1731 W. Market #12, Bethehem, PA 18018 USA (215) 867-9723

Herpetological Booksellers, Goodwill Lane, Holbrook, NY 11741 USA (516) 585-6539, fax (516) 585-6115

§ ANACONDA TO ZOOXANTHELLA §

To contact another member about other herps or ?

Mark Bayless is working on a study of the African monitors *V. exanthematicus* and *V. albigularis*. The purpose of the study is to improve husbandry techniques. Mark Bayless, 1406 Holly St., Berkeley, CA 94703, or call (510) 527 3744

Please give me a call if you are going on any field collecting trips. Steve J. Upton, Div. of Biology, Kansas St. Univ., Manhattan, KS 66506 (913) 532-6639

HerpNet is a US-based electronic forum that allows anyone with an interest in reptiles or amphibians to participate in a network of professional & amateur herpetologists, veterinarians, biologists, students, etc. HerpNet can be accessed at any modem speed. The caller pays only for the phone call. System operator: Mark Miller. Settings: N-8-1-F

Varanix
8726 D S. Sepulveda Bl. #243
Los Angeles, CA 90045
USA

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Mark Bayless
1406 Holly
Berkeley CA 94703

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