Volume 3 Number 1
1 February 1992

VaraNews

— Varanews is the newsletter of Varanix ©, the Varanid Information eXchange. Varanix was founded to help promote responsible captive care of monitor lizards through education and the open exchange of information.

General Info

Membership Renewals

Not aware renewal had been due, a number of people recently caught up after having missed a couple of issues. Please take a moment to look at your mailing label with each issue to see if your renewal is due.

Time constraints restrict promptly returned phone calls to urgent matters. Questions of a general nature are treated like written correspondence and will be addressed in these pages or posted for readership response. Very seldom is there a question asked by only a single person.

The best way to get a timely personal response is via electronic mail (e-mail) on either Compuserve or, preferably, internet (gjn@triple-i.com). If you have access (from anywhere in the world), please use it.

Member List

An updated member list will be published in a near-future issue. (The first was sent out last summer.) The list is compiled from the member questionnaire sent with your first issue of Varanews. The purpose of the questionnaire is to help members contact others sharing common interests. If you want to be included in the list, please return the questionnaire as soon as possible.

Please note that only checked entries are published. Apologies to the handful of people expressing disappointment they were not included in the first list. If you never got the form or returned it and are not sure whether or not you checked certain items, you may leave a phone message indicating the information you wish published.

Varanid Captive Husbandry Log & Vet Visit Sheet

This issue's insert was prepared to help you maintain records for your monitors. Use each side as a master to generate single-sided copies, as you may need to use the back of each for lengthy notes.

If you are keeping track of your monitor's activity, you might consider drawing an overhead view of the enclosure on a sheet of graph paper, or even the back of the log sheet, numbering the areas frequented. Then, use the numbers to reference the monitor's whereabouts when making an entry in the log.

Your are invited to submit your comments and suggestions about these forms for inclusion in a future revision.

You

Varanews readership covers a wide audience in relation to experience and interests. The member questionnaire, completed and returned by perhaps half the readers, gave a general view of readers' experience level and interests. The full spectrum is represented: from the person with the recently-acquired first monitor to the reptile curator, from the apartment dweller to those with acres at their disposal.

This means that there is always someone who you can learn from and always someone who can learn from you. Varanews offers you the opportunity to participate in both by sharing your experiences in these pages. Ironically, negative experiences are often the most "enlightening". If you've experienced a loss or injury to your monitor and still wonder what went wrong, write down as many details as you can and send them in. Your name need not be published. If you know what went wrong, you may be responsible for saving some lives.

When an article was helpful, let Varanix know by dropping a line or leaving a message.

Int'l Herp Symposium 1993, Miami, FL, 17-20 June

This year's symposium offers the following papers and workshops on varanids:

Husbandry and Propagation of Small Varanids - Prof. Hans-Georg Horn of Germany. Dr. Horn is one of the most qualified people to present this topic, having numerous captive breeding successes with monitors, including the Lace monitor, *V. varius*. If you've read any varanid-related literature, Dr. Horn's name should be familiar.

Husbandry and Biology of Varanids - William Zeigler, General Curator, Miami Metrozoo

Varanid Husbandry Workshop - Prof. Horn and Richard Hudson

Dr. William Branch, Curator of Herpetology at the Port Elizabeth Museum, S. Africa, will also be giving a talk on the herpetofauna of Richtersveld Nat'l. Park and the Diamond Zone of Southern Namibia. Though the topic is not specifically on monitors, there should be some useful range info for people interested in African varanids.

Full registration is $125, partial is $75. For full details, contact:

Richard A. Ross, MD
c/o Institute for Herpetological Research
P.O. Box 2227
Stanford, CA 94309.

Komodo Hatchlings at National Zoo... and Beyond

The 12 December 1992 issue of The Torch, newspaper of the Smithsonian Institute, reports the 26 *V. komodoensis* eggs laid earlier that year were divided into two groups of 13 and incubated at two separate sites: one group at the National Zoo and the second at George Mason University in Virginia. Each site had successful hatchings.

An off-shoot benefit of the public visibility of the extraordinary hatching of the 13 baby Komodo dragons is the opportunity to share the plight of this monitor in the wild. In The Dallas Morning News (page 6D, Monday November 23, 1992) Dr. Walter Auffenberg stresses there are only about 6,000 of them found in an area "about the size of an average American county". Not only is this a very small area (making them vulnerable to any localized natural disasters in addition to human encroachment), but there are "probably no more than 1,000 mature females and probably fewer than that are capable of producing young". The Zoo is looking at this successful captive reproduction as a big first step in establishing an inter-zoo breeding program.

Profiling the character of *V. komodoensis*, Dr. Auffenberg says: "They seem to know... every bush and stone in their territory and more importantly they know every deer trail", waiting in ambush for hours. Both Auffenberg and Zoo reptile keeper Trooper Walsh attribute them as being much smarter than the "average" lizard. (The Zoo's male will move from cage to cage in response to a whistle command. Readers you are not alone... Walsh also spends a lot of time speaking to his captive monitors.)

Thanks to Kathleen O'Neil and Bob Hole for sending in the articles. Bob recently visited the National Zoo and said the hatchlings are on display one at a time. He added that photos don't do them justice.

In the next issue of Varanews...

Michael Balsai discusses the possible causes of subcutaneous abscesses which can occur on the feet of savannah monitors.

Jim O'Dell reports on the captive reproduction of the freckled monitor, *V. tristis orientalis*.

Monitor-ing Medicine

This section is intended to help the varanophile understand the medical aspects of captive husbandry. What you learn here will hopefully help you work more actively with a qualified veterinarian/experienced herpetoculturist when encountering medical problems. You are invited to send in your questions and to respond to questions posted in this section.

This information is not a substitute for training and years of experience. Always work with someone qualified in the medical treatment of monitors.

As a followup to the unidentified parasite removed from a *V. prasinus* and pictured in the last issue, Mark Bayless contacted Dr. Steve Upton of the Biology Division of Kansas State University. Dr. Upton had the following comments:

"Although correct identification would rely on microscopic examination, the worm looks similar to nematodes in the genus *Dracunculus* (guinea worms). Only a single report of this genus in varanids has ever been published. Third stage larvae are ingested during drinking, along with the infected copepod host, and the larvae migrate through the body. Generally, axillary or inguinal sites are preferred, where [nematode] copulation occurs. Males then die and the female migrates to an area in the dermis where she matures and larvae develop. She eventually produces a sore on the skin [of the monitor] which, when exposed to moisture, results in larvae being released. In the water, larvae find copepods, penetrate, and undergo two molts to third stage larvae. Adult females excised from nodules can be used for generic diagnosis, but speciation relies on males (which are rarely found)."

Additional details will be published as they become available.

Dr. Upton is involved in a study trying to determine the species of coccidia infecting varanids and is interested in obtaining small portions of feces from any varanids suspected of coccidiosis. He can be reached at:

Steve J. Upton, Associate Professor, Division of Biology, Kansas State University, Manhattan, KS 66506

Tips & Tricks

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

Terra Cotta Hide Spot

Barry Richards (compuserve ID: 72260,2323) sent in the following description on how to make an inexpensive hide spot, both functional and somewhat "natural" looking. His immediate need was to provide a "compact" hide spot for his two-foot savannah monitor, Dino.

Many references recommend providing hiding places in the captive environment. An old clay pipe

would be great but very few construction suppliers carry those anymore. The modern white PVC pipe is not very attractive. Some pet stores carry wooden half-pipes but I haven't seen one yet that is big enough to provide much shelter for Dino. Our solution came very inexpensively with a couple of terra cotta flower pots. A pot with a 7-inch diameter mouth cost about 75-cents at the garden shop. I knocked out the bottom of the pot and used a chisel to divide it vertically into identical halves. Using a hot-melt glue gun, I attached the halves at the wide ends, creating a sort of "tunnel" with narrow openings at each end. I considered using silicone but the hot glue cures almost instantly and holds up great. While Dino is very gentle and is not afraid of anyone, he seems to enjoy the security of a place to rest. We keep it in the cool end of his enclosure and he spends his nights and several hours during the day with his nose and tail sticking out. He can also do an amazing job of twisting around, completely hiding under it despite his size. When soiled, I wash the tunnel with a water/bleach solution, rinse it and allow it to dry (until there is no smell of chlorine).

Chiseling is not an exact science, so you might consider buying several pots expecting to lose a few in the process. Better yet, find someone with the proper tools to make a smooth cut. Be sure to smooth any sharp edges, especially where the bottom (= tunnel entrance) is knocked out.

Along the same lines, a large terra cotta platter might do well. I have considered the two-inch deep ones that are generally 10-12 inches across. Part of the side could be chiseled off to provide an entrance when the platter is turned upside down. It would even provide a space on top for a dish or basking.

I decided to try the same concept on a larger scale. I'd set up a large dirt box in an outdoor enclosure and wanted to create a tunnel under the 18-in. (46 cm) deep soil to see if the inhabitants *(V. niloticus)* would use it as a hide spot.

nacleric

Stopping by a local pottery wholesaler/retailer, I found the terra cotta pieces I needed... and more ... for free. I had happened along just after they'd put out for trash the week's assortment of cracked and chipped rejects (many of which were still usable for plants).

Diet: Snails

Snails are part of the natural diet of many monitors. A few queries into their use as a captive food source have returned mixed results. One reader has been raising land and water snails as part of his monitors' diet for years. Dr. Chris Cauble cautions that snails serve as host for a multitude of parasites. He speculates one could examine the snails for parasites, followed by treatment, to establish a healthy colony.

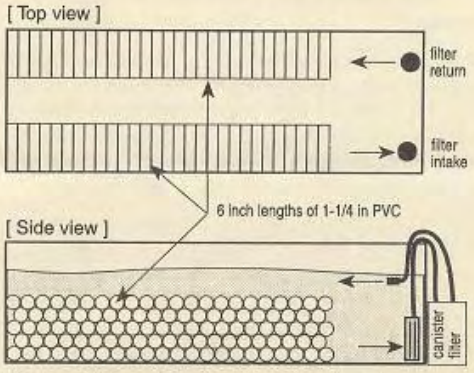
Any other comments/experiences?

Moving Down the Food Chain: Raising Crayfish

One of the first questions asked by the new varanophile is "what do I feed my monitor". Though people will debate what to feed, what's agreed is that food animals be healthy and disease/parasite-free. What better way to be certain than to raise them yourself.

Steve Blain has been raising crayfish, *Procamborus clarkii*, as a food source for several years. In a 6-foot long aquarium, he is able to maintain several hundred crayfish yearround as a dietary treat for 3 Nile monitors. As each new generation arrives, the adult crayfish are fed to the monitors. Steve described the following setup:

The tank is 72 x 18 x 18-in tall. Water temperature is kept at 78 F (25.5 C). No lighting is used. A Fluval 403 canister filter (rated 317 gph/1200 lph) provides the filtration. When changing the filter media only one section at a time is changed, leaving behind a healthy colony of beneficial bacteria to carry on the nitrogen cycle and colonize the cleaned section.



The filter intake and return are placed at the same end of the tank to allow food to circulate until eaten and not simply be carried across the tank right into the filter's intake. The crayfish are raised exclusively on trout chow, fed daily or every second day.

The key to maximizing crayfish production is to protect them from each other, especially during the soft and vulnerable period following a molt. This is accomplished by setting up individual "apartments". Lengths of 1-1/4 inch diameter PVC are cut into 6-in. sections, which are then stacked and glued together "honeycomb" style. Two housing units are created, each 50-in. long and 8-in. high, and positioned against a side of the tank and at the opposite end as the filter, leaving 22 inches of open space at the filter end. Placement against the sides restricts entry to each "apartment" to a single opening.

The water level is maintained no more than a couple of inches about the top row of PVC. No water changes are done; water is only added to compensate for evaporation.

Notes on Crayfish as a Food Source

In a recent discussion, Dr. Cauble also shared his thoughts about crayfish as part of a monitor's diet. When considering any food, care must be taken to avoid introduction of parasites and disease and it should fit into a monitor's balanced diet.

Crayfish sold for human consumption should be fine as part of a more complete diet but are not recommended as a sole diet. Any wild-caught food source can risk introduction of parasite/disease, pesticides, insecticides, etc.

Freezing crayfish destroys the vitamin E. Though vitamin supplements can be used, there is no accurate way to meter out the correct balance. Vitamin E, along wth vitamins A, D, and K, can be toxic when overdosed. Fed as part of a more complete diet, crayfish can be fed as is or lightly dusted with a powdered vitamin supplement.

One reader also suggested crushing the claws with pliers prior to feeding to avoid possible injury from the pincers.

Sexing

Steve Blain has also tried sexing a small number of monitors using a mini-maglite, designed for candling eggs. He holds the light underneath the the base of the tail and looks down at it from above and to the side. Trying this on a 16-in *V. salvator*, he suggests one should expect to see a 1/2-in. hemipenis.

Steve is interested in hearing from anyone who has tried (or tries) this method, hoping to determine how valid it might be. Let's hear from you. One benefit of this technique, should it prove useful, is that it is non-invasive.

Q & A: Natural Plants in the Captive Environment

There have been a number of requests about the use of live plants, especially in the larger enclosures. Typical questions are:
Which plants are safe to use? Which are the more "sturdy" types? How can they be set up/protected to minimize damage? (Some time ago, Troy Pearson described an enclosure, which was previously a walk-in closet, furnished with plants for his water monitor. He cycled damaged plants to a "rehabilitation" area then back to the enclosure. New plants were brought in to replace those that didn't recover.)

Your responses will be printed in the next issue. If you don't have the time or desire to write, photos would do quite nicely.

Captive Enclosures: Outdoor Living

naclerio

What follows is the description of part of a conversion of an outdoor, daytime sunning enclosure to a full-time outdoor habitat for a couple of Nile monitors. The first order of business was to insure the inhabitants would always have a warm retreat; I targeted 70 F (21 C) as my minimum, no matter how low the thermometer dropped. Living in a climate where the temperature very rarely drops tofreezing, it seemed feasible to design such a unit.

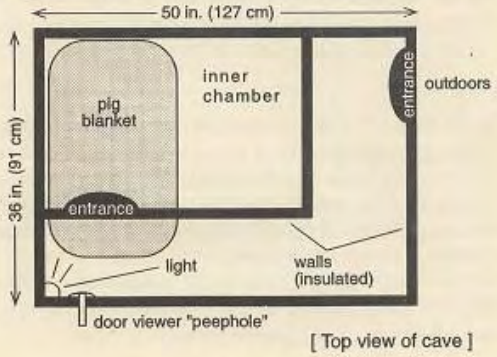
Two wooden crates were selected as basis for construction of an insulated, heated cave. The smaller crate, 36 x 22 x 24 in (91 x 51 x 61 cm) was set in the larger, 50 x 36 x 28 in (127 x 91 x 71 cm). The entrance to the "inner" chamber was cut as far away from the cave's entrance as possible to use the still air in the outer chamber as an insulator.

I wanted to provied as much a thermal gradient in the cave itself, for periods when the weather was unfavorable for the monitors to leave. The blanket was purposely put on the entrance side of inner crate to "trap" warm air in the inner chamber.

Insulation: The nature of the crate's construction, a sort of exoskeleton of 1 x 3-inch boards bordering each 1/4-inch plywood side, lends itself to a quick and easy installation of insulating material. Insulating styrofoam, 3/4-inch thick, was cut to fit in the recession framed by the 1 x 3-inch boards. The outer skin is 1/8-inch sheets of plywood nailed to the sides and top of both crates, sealing in the styrofoam. Insulation was laid on the floor of the larger crate and covered by a sheet of 1/8-in plywood. Aquarium silicone sealer was run around the base edge of the floor.

An added bonus was that the large crate was on hard plastic "pontoons" (used to minimize transport shock to the equipment it housed during its brief "first" life). This provides a cushion of air (approx. 4 - 5 inches) between the cave bottom and the cold cement slab on which the entire enclosure is set.

Heat: A pig blanket/hog warmer provides a constant source of heat regulated by a non-thermostatic power control (Jeffers Pet, Equine & General Catalog, 1 800 533 3377). The outdoor enclosure is inspected at least twice a day when minor adjustments to the control's setting can be made as necessary. Temperature is being monitored in 3 places: at the surface of the pig blanket, 3 inches



[Top view of cave]

above and to the side of the blanket, and outside the cave in the shade.

Non-toxic, child-safe epoxy paint was used on all exposed wood surfaces and then the unit was left to bake in the sun for several weeks. It remained empty for another 4 weeks with the pig blanket on so I could track the relationship between the power control settings and the temperatures being monitored.

Three sides and the top of an even larger crate (6 x 5 x 5 ft; 1.8 x 1.5 x 1.5 m) were used to construct a canopy under which the cave is placed, exposing only the southern side of the cave. Whereas the cave was painted dark brown to absorb the heat from the winter sun, the canopy remains light tan and was given a thin coat of child-safe spar (marine) varnish. This provides protection from the almost-overhead sun during the hot summer months.

Peephole: Accessing the inner chamber requires sliding the top off and unscrewing the 2 lag bolts holding the inner chamber's front panel in place. I was counting on the monitors defecating outdoors, so there wouldn't be any reason for me to bother about in the interior. I installed a wide angle door viewer at varanid eye-level across from the inner chamber's entrance. A small 7-watt bulb is suspended just above the viewer to cast light into the inner chamber. This is an inexpensive, unobtrusive way of checking on the monitors when tucked away in the inner chamber.

After 2 months in full operation, all is going well. Nighttime temperatures have fallen abnormally low, dropping to 30 F (-1 C) and there has been no problem keeping the inner chamber at 70 F. And this is without using the maximum power setting (the highest was 8.5 on a scale of 10).

Original Articles

Possible topics include, but are not limited to, any aspect of captive care, reports on captive breeding, personal experience, description of natural habitats, flora & fauna, legislation.

Observations of Egg Deposition and Hatching of the Savannah Monitor (*Varanus exanthematicus* BOSC, 1792) in Captivity

by Mark K. Bayless and Ron Huffaker

This species of varanid was first described by Louis-Augustin-Guillaume Bosc d'Antic (1759-1828) as "Lacerta exanthematica" in 1792. Louis Bosc's closing statement regarding his new discovery was: "We have no notes on its living habits." This is still a fairly accurate statement even in the 200th anniversary of its discovery.

V. exanthematicus thrives in the savannah tropical woodland biome across West Africa including Mauritania (southern), Senegal, Gambia, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin, Niger, Chad and Sudan. A common sight in many pet shops across the USA, the abundance of this species in the wild is threatened by the ever-increasing removal of *V. exanthematicus* from their habitats for use as wallets, purses and handbags. This paper describes the successful hatching of 15 captive born savannah monitors at the East Bay Vivarium (co-owned by the second author).

Upon arrival of a wild-caught female *V. exanthematicus*, she was placed into a large aquarium. Three days later, sixteen eggs were found on the substrate and almost went unnoticed as they were similar in color to the pine shavings.

The eggs were removed from the aquarium and placed into a plastic shoe box 31.75 x 17.78 x 10.16 cm (12.5 x 7 x 4 in) containing a 1:1 ratio of vermiculite and water. Some more water was then added to compensate for the eggs' water loss while remaining unobserved in the aquarium. After 7 - 10 days, the eggs became "puffy and white in color" and the substrate was returned to a 1:1 ratio. The eggs were kept at 29 - 30 C (84.2 - 86 F) and 85-95% humidity.

All sixteen eggs were fertile. After 152 days, the first hatchling began to break through its shell, totally emerging from the egg within 24 hours. (This hatchling turned out to be the largest member of the clutch.) The next thirteen hatchlings emerged successfully from their eggs with no problem. The fifteenth hatchling pipped its egg shell and was observed to roll around in the shell. Sadly, it apparently drowned in its yolk fluid. The 16th hatchling pipped its egg shell on its own, but was having difficulty emerging. It was decided to assist the hatchling by manually opening the egg. This individual was 1/2 to 3/4 the size of the other hatchlings.

It appears that the hatchlings break their egg shell and remain inside taking breaths of air and, more importantly, absorbing the last of their yolk sacs. As they breath, their expanding lungs, and hence body, seem to help their exit from the shell.

The young babies are very bright and full of color, as has been previously described (Horn; Staedeli; Visser). Behavior ranges from timid and quiet to active and aggressive. All are hungry and readily attack small crickets, meal worms, dog food and hard-boiled egg. Growing quickly, they move on to progressively larger prey items (Strimple). They also seem to enjoy soaking in water at this young age.

Needless to say, the staff of East Bay Vivarium is very pleased with this successful event. The hatchlings are delightful to view, though at present they are kept out of public view to be properly cared for.

The table below lists the egg dimensions for this hatching. Average egg length - 3.72 cm, average width - 2.5 cm.

egg #	length (cm)	width (cm)	egg #	length (cm)	width (cm)
1.	3.9	2.4	9.	3.3	3.1
2.	3.8	2.5	10.	3.7	2.3
3.	3.6	2.2	11.	4.0	2.9
4.	3.8	2.5	12.	4.0	2.8
5.	3.5	2.4	13.	4.1	2.4
6.	4.0	2.2	14	3.5	2.3
7.	3.3	2.5	15.	3.8	2.5
8.	3.5	2.6			

The lengths of four of the hatchlings measured at 61 days of age are listed below.

Hatchling	SVL (cm)	Tail (cm)	TL (cm) +/- 1 mm
3rd	9.5	7.5	17
4th	9.1	8.0	17.1
9th	8.0	7.5	15.1
13th	9.2	8.0	17.2

The table below lists a summary of data compiled by the first author on this and on past *V. exanthematicus* reproduction.

Notes on 3 Instances of the Captive Reproduction of *V. exanthematicus*

Eggs laid	Incubation period	temp.	Hatching #	date	References
1Nov90	158-165	27-29	47(3)	7-15 Apr 91	MacInnes, R.
20jan91	171-172	29-30	1(17)	9 July 91	Reynolds, T.
8Dec91	152-167	29-30	15(1)	1-19 May 92	Bayless/Huffaker

- The eggs laid in Nov 90 were incubated in soil. The other 2 clutches were incubated in vermiculite/ water at 1:1.
- The egg dimension and weight range for the July 91 hatching were: length 2.6-4.0 cm, weight 2.4-4.25 g
- Under hatching, the # reads: hatched (eggs infertile, broken, ...)

Other observations of egg deposition and hatching of *V. exanthematicus*, both in the wild and in captivity have been recorded (Cissé, 1976; Bayless, 1992: in press; Bayless & Reynolds, 1992; Frank, pers. comm.; MacInnes, pers. comm.).

Author's Note: Bob F. Pierson informed me of a female savannah monitor depositing 35 eggs. She is housed with 2 males in a spacious outdoor enclosure. Fifteen of the eggs are being incubated underground where they were deposited by the female. The remaining eggs have been placed in an incubator. Future developments will be reported as they happen. MKB

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Méli–mélo

The various and sundry...

Quick Nile Note

nacleric

It recently struck me) that out of 9 or 10 Nile monitors I've seen recently (both live and photos), the *V. n. niloticus* have blue/dark gray tongues and the *V. n. ornatus* have pink tongues, sometimes with a slight bluish tint. Has anyone else noticed this or the contrary?

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- CompuServe: user ID: 71320,721
- Internet: gjn@triple-i.com 71320.721@compuserve.com

Tel. (310) 768-8669 [Due to a busy schedule, phone calls may not be returned for 2 weeks or more. Lengthy questions should be sent electronically or by mail.]

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Num. 0: $1.50, 1(1) - 1(8), 2(1) - 2(6), 3(1) - current:$2 each.

Correspondence

Comments and questions in letters to Varanix often contain information of general interest to Varanews readership. When writing, please indicate if you specifically do not want to be quoted or have your correspondence reprinted in part or otherwise. (The author will always be contacted when considering publication of questionable or controversial topics.)

Submissions for Publication

Please indicate any special conditions of publication, such as withholding mention of name/organization or giving credit to a person/publication.

Editorial

Articles may be submitted in English or French. Electronic form preferred (PC/Mac diskettes in ASCII, Word, WordPerfect , RTF, etc.). Typed or handwritten submissions are, of course, most welcome.

Translations of non-English articles must be accompanied by a copy of the original paper, including bibliography.

Graphics

Hand-drawn graphics: up to 11x17 in.
Computer-generated: EPS, TIFF, ...
Photos: Color/b&w up to 8 x 10 in.
Slides: 35 mm color

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Editorial Review/Research	Mark Bayless
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Veterinary Advisors	Chris Cauble, DVM Scott Stahl, DVM

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Species Resource Panel

These individuals have volunteered to field specie-specific questions. In the case of a panel member returning a phone call, you are asked to pay for the call.

- Savannah (*exanthematicus*), White-throated (*albigularis*)
  Mark Bayless, 1406 Holly St., Berkeley, CA 94703
- Dumeril's (*dumerilii*)
  Mike Fost, Zoo Atlanta, Reptile Dept, 800 Cherokee Ave. SE
  Atlanta, GA 30315-1440 (404) 624-5618 (daytime EST)
- Nile (*niloticus*)
  Greg Naclerio, <Varanix address to left>
- Yellow (*flavescens*)
  Ennis Berker, 9603 Woodlawn Dr., Portage MI 49002
- Mangrove (*indicus*)
  Joel Shaner, 110 Long Pine Dr., Madison Hts., VA 24572

Monitor Rescue Program (MRP)

This volunteer-sponsored program was established to place unwanted monitors in the permanent homes of experienced varanophiles. For a copy of the program description, send a legal-size SASE to Varanix, attn: Monitor Rescue Program.

All other questions should be directed to the MRP Administrator:
Wanda Olson (408) 274 9020, (408) 274 2555
4099 Timberline Dr.
San Jose CA 95121

In these pages...

Articles appearing in Varanews represent the opinions and experiences of the respective authors. Though best efforts are made to insure accuracy of contents, the reader must recognize that the majority of available information is based on individual personal experiences and therefore difficult to verify.

The reader is well-advised to evaluate everything heard and read, regardless of the source. Consult as many references as possible and never attempt any husbandry technique that is unfamiliar or you are not confident you are capable of performing. ***This is especially true of medical procedures or when safety (monitor, personal and public) is involved.*** If you read something in these pages you do not understand, question, or can add to, you are urged to respond for the benefit of other readers.

Reprinting parts of Varanews...

The contents of Varanews may be reproduced for inclusion in the newsletters of herpetological societies with the following provisions: the material is reproduced without change, appropriate credits are given, and a copy of the publication is sent to Varanix.

When reprinting parts of this newsletter, you are requested to maintain the original context. This is especially important when the topic includes discussion of unfortunate experiences or how not to do something. (Taken out of context, a "how-not-to-do" may be interpreted as a "how-to-do".)

When submitting part of Varanews for reprint in another publication, please include a copy of this page.

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

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. You are encouraged to inform Varanix of your satisfaction/dissatisfaction with a product or service. Your comments will remain confidential.

Varanix Coffee Mugs

On one side is the original Varanix logo in black& green. The other side has the specie s text piece shown below.

COST: $5.95 per cup. S&H: Add $3.50 for the first cup and $1.50 for each additional cup. Please allow 3 - 4 weeks for delivery. (Shipping rates are for the US only.)

komodoensismertensiprasinusvariusexanthematicuspanoptes
rudicollisindicusglauertisalvadoriikordensismitchelli
acanthurusprimordiusdumerilliiflavescensrosenbergi
timorensisbrevicaudagiganteusglebopalmaspencerii
albigulariscaudolineatusniloticusolivaceusgriseus
tristiskingorumsemiremexgouldiisalvatoreremiusgilleni
karlschmidtiocellatusnebulosustorribengalensispunctatus

§ PUBLICATIONS §

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

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

Herpetological Booksellers, P.O. Box 1906, Palm City, FL 34990-1906.

The Guide to Keeping Monitors. $5.99. The Reptile News Press, 17603 E. Tennessee Dr., Aurora, CO 80017. (303) 751-6923.

"This is a nice booklet for those new to the hobby and should reduce early mortality of captive monitors." [Mark Miller, Varanews 2(2)]

§ ANACONDA TO ZOOXANTHELLA §

I am working on a study of the African monitors *V. exanthematicus* & *V. albigularis* to improve husbandry techniques. Mark Bayless (address, page 7)

HerpNet is an electronic forum that allows anyone with an interest in reptiles/amphibians to participate in a network of professional & amateur herpetologists, veterinarians, etc. HerpNet can be accessed at any modem speed. (215) 464-3562. Settings: N-8-1-F

Blue Ridge Herp Society, P.O. Box 727, Brookneal VA 24528.

Investor, partner for Reptile 200 and ranch in Las Vegas, NV. Bob F. Pierson. (702) 457-4747

Membership renewal is due if the mailing label says:

EXPIRES 3(1)

Please note that no other reminders are sent due to the time and expense involved in doing so.

§ FOR SALE §

2.1 captive-bred freckled monitors *(V. tritis orientalis)*, 6 months old, eating pinky mice, 7 - 9 in. TL. $4500 for the group. Will consider trades for varanids listed in my wanted ad below. Jim. (602) 649-1399

0.0.1 Flawless, tame, long-term captive Timor *(V. timorensis)*. Feeding on frozen fuzzies. $200 or trade. Tom Chiang (617) 566-6044

§ WANTED §

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

Captive hatched and/or raised varanids. Preferred age is hatchling to sub-adult. Wish list includes: Desert, *(V. griseus)*, Yellow *(V. flavescens)*, Bengal *(V. bengalensis)*, White-throated *(V. albigularis)* and most Australian varanids. Jim. (602) 649-1399

Female black roughneck *(V. rudicollis)*; female red tegu. Joshua Cushner, 7301 Fountain Ave., Los Angeles, CA 90046.

One each, *V. salvator* and *V. rudicollis*. Very young or captive raised only. Wayne Palmer, P.O. Box 2781, Eugene, OR 97402. (503) 683-6019

Female *V. salvator nuchalis*. Steve Blain (415) 468 0578

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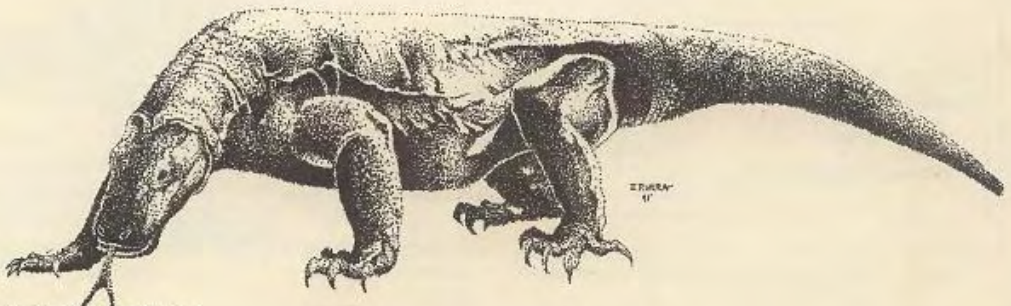
GRATIS

Mark Bayless
1406 Holly St.
Berkeley CA 94703



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