The Maine Herpetological Society

Newsletter

Volume 15 Number 7 August 2007

Upcoming MHS Meetings and Regional Events
Mark Your Calendar!

Sept 15	Regular Meeting—Island Apartments. Doug Kranich will submit a slide show and speak about his Costa Rica trip.
Sept 15-16	Mid-Atlantic Reptile Show—Timonium, MD (aka Baltimore show)
Oct 20	Regular Meeting - Island Apartments

Memberships

We welcome the following members to the MHS:

Heather and Paul Kinne, Brownville Junction— Family
Caleb Miller, Limington—Student
Amelia Clark, Barnstead, NH—Family
Jen Cote, Portland—Student

And we thank the following for renewing their MHS membership:

Joanna Duby, Marblehead, MA, Family
Tanya Leveille, Pownal—Individual
Ryan Caron, Portland—Family
David Mork, Richmond-Individual
Jennifer Downing, Corinth-Family
Bob & Claire Holden, Barnstead, NH—Family
Phil Roy, Waterville—Family
Josh Easter, Greene—Family
Doug Kranich, Millinocket-2yrs.-Individual

Society Notes

This is still the August issue even though some of you may receive it in September. I apologize for how late it is in the month. Besides the normal activities that keep me from finishing the newsletter I went to Daytona for the Expo and upon my return had to gear up for our own Portland Expo. It still seems like I haven't gotten everything back to normal.

Speaking of the Portland Expo it was nice to see so many members there. There seemed to be more than usual but that could be my imagination. As you can see from the renewals and the new memberships there was a lot of activity at the Society table. The expo was another successful year. I didn't have the space for the income report so I will put it in in the September newsletter.

Jason Patterson is looking for someone to take over the rodent sales. I am not sure what this entails but at the least you would need a large freezer that you don't mind putting rodents in. Also I believe the rodents need to be repackaged in 25 per package. You need to bring them to the meetings for pick-up and collect the money from the sales to send to Doug. Think about it and talk to Jason at the next meeting if you're interested in helping out.

If you notice this issue is 10 pages. I am trying this out to see how it works out. You may think it is strange since I am always crying for articles but the reason is pictures. I am hoping to be able to add more pictures with 10 pages. The test will be the postage. I'll let you know mid-month if it will continue. There isn't any classifieds in this issue. This is not a permanent change. I have litterally had no time to work on the newsletter this month and didn't want the delay of calling for ads and then putting them int. The next newsletter will only be about week later and in that one the ads will be back.
Ed.

A Costa Rican Adventure

Part One by Douglas Kranich

The pouring rain pounded the metal roof of my rain forest cabin all night long. The swelling river below seemed to get louder by the minute. I laid there wide awake in the darkness wondering if we'd be able to get across that river the next morning to ride back out to civilization. Sleep seemed unobtainable, laying there, wondering if we'd be stranded. It was just another chapter of a grand adventure in Costa Rica this past June 15-26.

As a Millinocket Middle School science teacher, I had looked forward to this trip since the previous summer. It was like the "prize at the end of the tunnel". Immediately after school ended, I was off to San Jose, the capital of Costa Rica, where I was to join an elementary school group from Trenton, Florida (near Gainesville). I was out of my mind considering what I expected to be the herp adventure of a lifetime.

My writing will be describing my activities and adventures first and then I'll focus on the biodiversity and herping. I believe the places we went to and stayed at were as important as the herps we found there. Hopefully you're willing to read about the adventure as much as the animal life.

The group's organizer, Chuck Vogel, and I, had met three years before at the National Reptile Breeder's Expo in Daytona Beach, Florida. Since Chuck was a science teacher also, it gave us extra incentive to stay in touch after that initial meeting. He informed me early last summer that he'd taken a school group to Costa Rica and encouraged me to consider joining them in the summer of 2007. Going to Costa Rica had been a dream of mine for nearly ten years, so I didn't need much coaxing. It was an easy decision.

My desire to go to Costa Rica came from many angles:

1) I love to travel and I had never been anywhere in Central or South America before. It was a brand new destination.

2) I had read that tiny Costa Rica included 10% of all the world's species. There is no other place on Earth where I had the chance to observe more biodiversity in a natural habitat.

3) I have been teaching about Maine's ecology in my science classes and studying the rain forest's ecology firsthand was a perfect match.

4) As a reptile and amphibian lover, this was like a dream herping tour. There is no other place where I could see more herp species than the rain forests of Costa Rica.

5) Our 7th grade Social Studies curriculum includes Latin America. A visit to Costa Rica would provide a perfect personal supplement.

Luggage Carrier

Our itinerary stretched over ten days. I was to be with the entire group for the first week in two different places, five days at the Selva Verde Lodge and two days at Arenal Volcano National Park. After the rest of the group returned to the US, Chuck, his 6th grade son, and I would remain and travel to a remote rain forest lodge called Rara Avis in the central mountain range for three additional days.

Selva Verde Lodge will always be special because it's where I first encountered Costa Rica.....and what a way to do it! The lodge is on a

(Continued on page 3)

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500-acre preserve with a mission to preserve Costa Rica's rain forest corridor, educate visitors, and cause minimal impact in the process. Besides several guided walks through their preserve, we enjoyed many activities that were short distances away. Following are some of the great adventures we participated in while there.

Whitewater rafting down the Sarapiqui River for three hours was the most refreshing of all. With nearly constant class 2 and 3 whitewater, we were repeatedly soaked by waves. It felt wonderful in the high heat and humidity.

We also visited the small, nearby, bustling town of Puerto Viejo. The main square contained a soccer field surrounded by the main streets and businesses. A visit to the supermercado(supermarket) produced many bags of locally grown Costa Rican coffee to be given as gifts back in Maine. This was definitely not a tourist town and few of the natives knew English there. It made me keenly aware of my inadequacy with the Spanish language.

The Sarapiqui River also flowed through Puerto Viejo several miles downstream from where the whitewater rafting occurred. It flowed quite differently here... flatter, wider, and muddier than at the higher elevations. Puerto Viejo is the farthest navigable point inland from the Caribbean, hence the meaning of its name "Old Port". A long narrow tour boat floated us downstream as our guide pointed out a great variety of wildlife.....crocodiles, caimans, iguanas, monkeys, bats, sloths, and toucans. There were also a lot of people, especially children, swimming and playing along its banks, where sandbars fanned outward from the shores.

A highlight of the week for me was a trip to an elementary school. Our small touring bus was too large for the suspension bridge we were required to cross to get to the school. We all had to get off, cross the bridge, then walk about 3/4 mile to the school in Chilamate. First the American students were introduced to their Costa Rican pen pals, which was a bit awkward since no students were comfortable with the other's language. Second, ten of the Costa Rican students had prepared a traditional dance which they performed, to everyone's delight. Finally, the event that broke all barriers, they held a massive soccer match for all the students in the school yard, both American and Costa Rican. It was great fun to watch.

We went on a zip-line canopy tour, certainly one of the most incredible activities I've ever participated in. The course consisted of fourteen zip-lines which took us over a river and from platform to platform, high up near the canopy of the forest. We "flew" past dense leaves, branches, and vines as our pulleys hummed down the high-tension cables at high speed. The final zip line was nearly one mile long and took almost 80 seconds to complete. As we began on a platform situated on a bluff high over the river, we each zipped as fast as 50 mph, suspended 150 ft. above the whitewater. It nearly took my breath away.

From Selva Verde Lodge we were bussed four hours to Arenal Volcano National Park. The main highways we traveled were all nicely paved. The problem was that everyone and everything used the roads, day and night. People were walking, riding bikes, riding horses and pushing baby carriages. Huge semi-tractor trailer trucks flew by at high speeds and no one seemed to move much and there were no shoulder strips except grass.

Doug on Zip-line

The roads were also unpredictable. On our last morning, during our ride to San Jose's airport through the mountains, we were held up for several miles by a long line of one way traffic. Eventually it was clear that a mudslide had occurred and fortunately only one lane was covered. Road crews with front end loaders feverishly worked to remove the huge volume of mud and debris in order to restore the flow of heavy traffic.

We enjoyed the next two days in the vicinity of the Arenal Volcano. . It is the most active volcano in Central America and it was unnerving to hear loud gaseous eruptions three or four times. At night when the cone wasn't clouded in, we enjoyed seeing the orange glow of magma, but the famous scene of the red lava flowing down eluded us because it occurred on the opposite side from our hotel. By day, we walked on lava from a "recent" flow (1992) and watched and listened in amazement as boulders hurtled from the summit bounced down the slopes at

(Continued on page 4)

(Continued from page 3)
high speed. Trails of smoke puffs were evident at every point of contact.

After leaving Arenal, the bus took everyone back to San Jose for their return flight to the US, except Chuck, his son and me. We still had three more days of adventure! We headed to the little town of La Horquetas, where our 4-wheel drive shuttle awaited. Our vehicle took us nine miles to a remote rainforest lodge up in the mountains (elevation 2400 ft). for the remainder of our trip. The first seven miles of 4WD road extended up through deforested areas now used for cattle grazing. I already had thought the first portion was the roughest ride of my life. But then, we transferred all of our luggage, supplies for the lodge, and ourselves to a cart pulled by a 4WD tractor for the last two miles. The road wasn't fit for any manmade vehicle but we proceeded anyway. Where on earth where we going??

Where on Earth were we going??
Find out in part two in the September Issue

Doug and Wibreth (Rainforest Guide)

The Travis Total Termination Technique for Snake Mites

By Travis Cosette

I think anyone who has ever kept a large number of snakes has been through this scenario at least once. You attend a reptile show, purchase that really neat snake, get it home and at first you may notice it soaking in it's water dish or worse yet, see tiny black specks moving on the paper towel or newspaper. This is NOT a fun thing for a herp keeper to deal with. Ordering snakes online and having them arrive in the mail is even more difficult because you can't inspect a snake for mites that far away.

The snake mite, Ophionyssus natricis, is an arachnid ectoparasite of snakes. These mites suck snake blood, they annoy snakes, they are potential vectors for the transmission of serious diseases, and they can be difficult to eliminate when they have been introduced to a captive snake collection. There are many ways to remove snake mites from your colony of snakes; this way has proven to be easiest for me. I have had a few friends come to me with mild horror stories of mites in their collection so I decided to write this casual how-to article on killing these nasty pests.
method

First of all, you'll probably want to sock me for saying this and it sounds so redundant, but make sure to prevent mites from even entering your breeding stock by establishing a closed colony away from your recently purchased reptiles. I would even go as far as buying a "quarantine rack" in another room separate from your reptile room. Of course, this won't prevent airborne diseases such as Ophidian Paramyxovirus (OPMV) but in the case of keeping mites out, this is the only way to be certain not to get them into your main colony. Always work with the snakes in the quarantine rack last. Keep the rack sprayed down with Permethrin spray [I'll explain this later]. Also if you have access to them, keep a box of latex or nitrile gloves to wear while working with quarantine snakes. Disinfect any hooks, probes or other equipment after use or better yet, designate equipment only for quarantine snakes.

Okay, so you are working in your colony and you see a mite, or mites, or thousands of mites. **I strongly feel that you need to treat the entire colony exposed to the mites.** Other people are confi-

(Continued on page 5)

(Continued from page 4)
dent that you can treat only the affected cage or even affected animal. Which ever method you choose, here's what you need for supplies.

Pillowcases: Clean and hole-free from your local thrift shop or yard sale. You can never have too many of these.

Zip Ties: Great for securing snakes in pillowcases when you don't want to fumble around with making a knot in the sack without accidentally tying the snakes head into the knot! Also great for bagging venomous snakes quickly and safely.

Shop Vac with HEPA Canister Filter: Sucking up those nasty critters.

Bucket of hot soapy water: for racks.

Lot's of soapy water: for cage furniture and water bowls.

Clean, plastic totes with lids: Don't use your existing sweater boxes that have your snakes in them.

Spray bottle of disinfectant and lots of paper towels: This could be a 10% bleach solution or a Quaternary Ammonium Compound.

Last but most important, several cans of Permethrin spray [0.5%]: Most people are familiar with this as the Provent-A-Mite spray. However for the last five years I have been purchasing Repel Permanone Clothing and Gear Insecticide. It contains the same active ingredients as Provent-A-Mite and costs $4.50/can. You can find this stuff in any Wal-Mart in the camping section. I love it and it works perfectly.

Repel Brand Permanone

The first thing you need to do is treat the insides of all your pillowcases. You should designate one pillowcase per snake you have. Take the pillowcases outside and have a friend hold the tops open for you while you spray [4-5 seconds of good fogging] the inside of each pillowcase. Lay them on something and give them 20-30 minutes to dry.

Once dry, place each snake in it's own treated pillowcase. Use zip ties to make it easier to secure each bag. As you place each snake into a bag, put them into a CLEAN tote. I would even go as far as lightly spraying the inside of the tote with Permanone as well, this includes the inside of the lid.

Now, place your tote of snakes in the corner of the herp room better yet, out of the herp room. Make sure to keep them in an area that is similar to their heating requirements, they will have to stay in these bags for nearly 24 hours.
You must tackle the task of taking all cage furniture and water bowls outside. Of course taking things outside and scrubbing them down on the tailgate of my truck is my favorite method, but I live in Florida. I am sure it would be quite a different scenario in mid-January New England. I am sure you could do the same in your bathtub.

I usually have a tote or large bucket and brush with soapy water. Ivory dish liquid is $0.99 so there's no excuse. Scrub all driftwood, water bowls, hide boxes and other cage furniture well, let dry in the sun. Once everything is washed and rinsed, go back into your herp room and take out all substrate out of the cages and discard. Usually a whisk broom and a large trash bag will do the trick here. Once that is done, break out the shop-vac and vacuum every corner and crevice of your enclosures. Unfortunately this will involve around the outside of racks and cages including the floor and corners of the herp room. This all sounds very redundant and tedious, but you'll thank me. If one lone female mite is left, she'll lay eggs and start this whole nightmare all over again.

Once vacuuming is complete, get your bucket, sponge and hot, soapy tap water and start washing down all your racks and enclosures inside and out. If you have a rack system, take your empty pans outside and wash them with your cage furniture. Don't forget to wipe down the inside tops of each rack shelf; this is the exposed "ceiling" that is in the snake enclosure and is a haven for mites. Wipe everything down. You can follow up with clean tap water to rinse if you'd like to.

Once everything has been vacuumed, cleaned, and dried. Treat all empty enclosures with Permanone; using a sweeping method of spraying to lightly coat all areas. Make sure that warm-blooded pets are far away during this step. The chemical can cause eye irritation and respiratory problems when inhaled in aerosol form. Make sure to read and follow all safety precautions on the can prior to use. Also, any other insects inside the area will die as well. People who keep crickets or arachnids or other inverts as a side hobby must take precaution and get these out of the

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(Continued from page 5)
room or better yet, the house.

Depending on the severity of the infestation, it may take 2-3 treatments this way to be 100% mite free. Sometimes, I will give the snakes a break and place them in treated shoeboxes with a bowl of water for a day and then re-treat them in new sprayed pillowcases. The bottom line is that you cannot set your snakes back up in their enclosures with substrate until you are sure you've killed all the mites or else, go back to the beginning of this writing and repeat!

Lightly spray all cage furniture [hide boxes, driftwood, etc] before placing back into the cages. Do not spray water bowls! The main idea is just keep a close eye on your snakes for mites, be careful when introducing new stock and designate two days to the treatment of an infestation. You really get a reality check on how many snakes you have when a mite infestation hits your colony, it's not fun and I am not proud of going through dealing with these bugs, but hopefully these tricks and techniques that I have learned will help others. The bottom line is that it's not going to be fun, so recruit a friend to help the pain.

A Few Thoughts on Proving a Morph

By Harald Moore

I recently had reason to actually, seriously, think through the process of proving a morph. Never having been in that position, and only having given it the most cursory consideration, my only prior thought had been something along the lines of "breed it and see what you get." It didn't take much to make me realize how naïve a thought that was. I will use the animal in question for my explanation, because it really is a best case scenario – the snake is a breedable male.

How do I prove him to be something other than normal? Well, the obvious answer is to breed him…but a single breeding doesn't really prove a whole lot (which is why a breedable male IS the best case scenario). Taking a look at my available females, and my other projects…I would be willing to divert 4 normal females to this project, just to get a good start. Lets say an average of 5 eggs each (easy math) – leaving me 20 babies. The logical first thought is: "Do any of the babies look like their father?" But then, one has to consider the possibilities – might this be a recessive, codominant, or dominant trait? I guess that means we look for babies that look like the sire, babies that don't – but don't really look normal, and babies that appear to be normal (hets?). Well, I just added 20 balls to my collection for the sake of this project, because I have to keep them all.

The next season rolls around, and I breed the male to 4 different normal females – getting the same results…20 more babies. Now I am up to 40 in my project (not counting the sire) – 20 yearlings, 20 babies.

The next season arrives. What to do now? IF there are male babies that share the sire's appearance, these would be bred at this time, to yet another group of normal females. If there are females that share the appearance, and are breedable, they would be bred to the original sire – to see if there is a super form. Now, what of babies that might not look normal, but don't look like the sire – these could be "visible hets", "markers" or whatever term you like to use. If there are males – they get bred to normals. This is the year that things start to get crazy & and the project exponentially increases in size. If it was clearly a dominant/codominant trait, I would likely sell off the normal looking males at this point. I would keep the "normal" females to breed to the sire, just to see. Maybe there is a recessive component No sense doing this half-baked.

Now, you could ask, "Is all that really necessary?" My response would be yes. To be proven a morph, the trait has to be genetically reproducible. The possibility of a recessive trait has to be explored. Likewise, just finding a bunch of little look-a-likes doesn't provide all the answers (just think of all the morphs we wouldn't have if people stopped there). Starting with a single breeding, while an easy test, slows the rate of proving the morph...and, perhaps more importantly, it adds delays to the learning process (What is it, what is the nature of the morph, how is it classified/described, etc.) It also limits the breeding possibilities. The approach I outlined, even though it starts with a single male, allows a fair amount of genetic diversity when the time comes to breed things back together. There would obviously be at least a few father to daughter pairings, but there would be a number of available half sibling pairs to work with as well.

For me, I don't have the interest or dedication to follow that through…not to mention the space. (Keep in mind, I am not a big BP fan, so that certainly impacts my decision). For the right animal, I might try the first

(Continued on page 7)

(Continued from page 6)
round - just to see what I got – but I'll leave the proving game to the big guys. (No, I don't want to be one of the big guys)

Keep in mind that what I described really was a best case scenario, in that the animal in question was a breedable male...that means things can start immediately (in fact, it seems they have). Consider for a moment a different scenario: a CH female that just seems to stand out from the crowd. Now, you are looking at 18-36 months before she is breedable. Ideally, that time would be spent searching for a male that looks just like her...but we'll assume one isn't found. Unlike the situation I previously described, this female can only produce 1 clutch per year. It will take 4 years to get the same 20 offspring. The same theories apply, regarding what to breed to what. In the initial phase, a different male should be used each year, to offer some genetic diversity to the offspring...but what if you get similar looking babies with one male, and not another? We all know that most people will jump to breed a son back to the mother, but if the care isn't taken to outcross from the start, when will it happen? (The process really is so much easier with a male animal, - you can outcross and line breed in the same season.)

Here are two articles that I came across recently. The both deal the turtles/tortoises. Ed.

Hatchling Tortoise Survivorship

D.A. Pike and R.A. Seigel [2006, Herpetologica 62 (2):125-131] note that survivorship of hatchling chelonians is low in many instances, although few investigators have intensively studied the immature life stages. The authors used radiotelemetry to assess hatchling gopher tortoise (Gopherus polyphemus) survivorship in central Florida, and compared results to previously published studies in north Florida and Mississippi. At the authors' site toroise predation was extremely high, and no hatchlings lived over 335 days. Average lifespan was consistent among clutches, and the highest mortality occurred within one month of hatching. Major predators included mammals and snakes. These results are similar to published data from north Florida and Mississippi., although hatchlins in north Florida survived the longest. However, all tortoises in each study died many years before reaching sexual maturity due to predation. Hatchling predators varied by site, but mammals were the major predator at all three sites. The authors discuss the population-level consequesences of high mortality in the younger life stages and several hypotheses associated with population stability. Although hatchling mortality was extremely high, long term data from the authors' central Florida site show that immature animals are captured on a regular basis. The most like explanation for this apparent contridiction is that true hatchling survival levels are above zero, but are too low to be accurately detected with the current sample sizes. Therefore, long-term mark-recapture studies focusing on hatchling and juvenile animals are necessary to determine whether recruitment is sufficient to maintain current population sizes, or if populations are declining slowly.

That one was a little gloomy so here is some good news about turtles for a change. Ed.

A Long-term follow-up report.

In 1985 researchers counted only 702 Kemp's ridley sea turtle nests along Mexican beaches, down from a high of tens of thousands in the early 1950s. It seemed highly unlikely that the species could recover from such a hit; but conservation organizations including HEART and others took root. They stopped the slaughter in the water of adult turtles, reduced the number of humans and other predators poaching eggs, collected eggs, raised and head-started turtles both in Mexico and in the United States. Hatchlings were released by the buckerful; head-starters got rides on boats out to the open ocean. Local people have been involved every inch of the way. Ecotourism and foundation dollars have created economies around the turtl4s and that did not exist 20 years ago. And the results are now in. Last summer, 2006, was a bumper year for Kemp's ridley turtles, they had 11,600 nests compared with 2005 nest totals of 10,099. The seafood industry continues to lobby the U.S. government heavily to support turtle programs and have pressured Congress several times to restore funding for turtles. After a long fight, in 1987 the U.S. required its own shrimpers use turtle excluder devices [TEDs] and in 1989 passed a law requiring imported shrimp to have been fished with a TED in place. Researchers hope the support continues now that the turtle numbers are beginning to climb.

Update on the turtle eggs by Kevin Murphy

A few months ago I told everyone about my collecting both snapping and painted turtle eggs. Of the 75 snapping turtle eggs collected (some just lying on the ground) - 62 hatched and were released. Of the 7 painted turtles eggs only one hatched and is