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Number 1 • 2013



BERUS

Magazine

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BERUS is issued by Mr Pierre von Rahmel and Mr Leif Westrin.

The aims of the the magazine are to promote a greater understanding for amphibians and reptiles in nature and in terrarium environments, to encourage research to stimulate the development of sound and healthy techniques to maintain and propagate amphibians and reptiles in captivity, and to initiate and support measures to protect threatened species.

Works on the world's amphibians and reptiles, in nature or captivity are published in BERUS.

The journal BERUS is issued on the basis of available material and time constraints of the publishers. Articles, photographs, drawings or any other contributions are to be sent to the journal in digital format.

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We warmly welcome more articles, in the English language, so that our magazine can be read by all animal and nature lovers around the world.

This digitally paper is religiously and politically independent, as well as noncommercial.

Number 1 - 2013

BERUS Magazine Publisher & Editors:

Leif Westrin & Pierre von Rahmel
Stockholm, Sweden

Cover:

A Lesser Weasel (*Mustela nivalis* L.). © Leif Westrin

Leader

BERUS Magazine number 1 - 2013

We, the editors, have decided that we now will publish the BERUS Magazine in the ENGLISH language!
So welcome to the first and hopefully not the last issue of BERUS Magazine.

Formerly an exclusively Swedish magazine, now an international herpetology magazine, in digital form.

More about me, Leif Westrin and Pierre von Rahmel is available on BERUS website.

Me and Pierre have come to the conclusion that the future of magazines ARE digital, whatever others says.

It's good for the environment when X numbers of trees is saved, and thus animal habitats.

Our intention here is to publish articles about nature, it's conservation and the animals that interest you. You can write about what's in your heart. It doesn't matter if it's the complex systematic or personal experience of such your gecko or corn snake. You not need to be worried about the language. Editorial team goes through the article, in consultation with the author, before publishing.

Attack the keyboard and type!

It is YOU who decide whether the Magazine survives, and not slowly fades away.

Friends to BERUS and the nature around us are welcome to write in English.

Ps!

We will soon launch our new magazine, BERUS Photography, with great nature photography,
warmly welcome when it arrives on BERUS website.



www.berusmagazine.se



Pre introduction

For years I dreamt of keeping king cobras as 'pet' snakes. I still remember the time, when I was a little boy, sitting in the back seat of the car with a little book about wild animals. Inside the book there was a drawing of a female king cobra with her nest mound which she protected, that was the day I fell in love with this magnificent species.

Many years passed until at the Terraristika Hamm Expo a German breeder named Horst Bungert offered some of his own captive bred king cobra babies. The parents were fresh wild caught animals with less than a year in captivity and had already produced a healthy clutch of eggs, most of which had hatched.

I decided to buy one for 200 Deutsche Marks and was informed that the snake had never fed before. Once home I placed it in an aquarium [50x30x30 cm] with a lid made from wood and aluminium mosquito wire. That was the first crucial mistake I made, since king cobras require good airflow and ventilation. I was thinking since Indonesia is rainforest, requirements must be warm and humid. I installed a 25 watt light in the enclosure that raised temperatures up to 30.00C in daytime and a humidity of 80-90%. The snake never fed, I twice force fed it a 'pinkie' mouse, after 3 weeks it died because I maintained it in the wrong way.

I now know king cobras need to feed a lot, require high ventilation, at temperatures no hotter than 27.00C and a humidity level as low as 50% for healthy maintenance.

After this initial failure and disappointment it was several years until I met a Swedish breeder, at the Reptile Expo in Neuss, Germany in 2002, who had several Chinese Banded king cobra babies for sale, he was asking 200 US Dollars a head and we agreed on me taking five of them. They were healthy curious little snakes and the breeder gave me, as a bonus, a bag with small feeder snakes like *Dinodon* and some kind of Chinese water snake (*Enhydris sp.*), I can't recall the specific name.



I housed them in small 60x30x30 cm enclosures. The following day four out of five were feeding, which made me very happy. The specimen that did not feed died the next day without any obvious good reason and I concluded it was probably stress. The others did well for months, but I never got them to feed on corn snakes, whatever technique I tried did not work. They grew very slowly, and shedding was a constant problem. Of the four babies that remained two of them died after having kept them for 6 months. I needed to force-feed them, which I did with 'pinkie' mice. The two others died in a fire in my snake room at the end of 2002, the fire itself did not kill a lot of animals, but the toxic gases produced in the fire killed a lot of snakes over the subsequent days.



At the Hamm expo in 2002 I bought a new Indonesian king cobra from the same breeder that I had purchased one from in 1998. This snake died after a few weeks of force feeding, but was somewhat dehydrated from the long day at the expo, and unfortunately never was in good health.

It would be several more years before I could finally welcome some great and good looking king cobras into my collection.

Introduction

Although I have succeeded raising baby king cobras I am also aware of the problems experienced in the past which has cost me a few very nice king cobra babies (Chinese Banded and Indonesian (Java) king cobras).

Often keepers of venomous snakes ask me how I raise my baby king cobras in this article I will describe, as accurately as possible, how I raise them, my set-up, care and maintenance, feeding and shedding.

This is the way that works successfully with my king cobras.

King cobra babies are active but shy snakes, in the wild they often climb up bushes or trees and are mainly arboreal snakes. The enclosures I use for the baby king cobras in the first 4-5 months of their lives are full glass terrariums with double ventilation, one vent on the front placed diagonally and one vent in the middle of the roof of the enclosure over its entire length.

As my snake room has an average temperature of 25 0C I do not have additional heat in the enclosures. In each enclosure I install a 25 watt spotlight shining directly onto a big rock placed under the spotlight, this rock heats up during the day and keeps its temperature for a long time at night when the temperature drops in the snake room to a minimum of about 14-15 0C in winter time at night.

The first 2 months I keep them very clean. Substrate is a mixture of 1 part sand, 2 parts coco peat and 3 parts fertiliser free potting earth, a solid soil mixture that keeps its humidity and is ideal for burrowing, which baby king cobras also do. My Chinese king cobra dug a complete tunnel system with 2 exits/entrances from one hide, a piece of bark from an apple tree, to a second hide, a small hide cave (manufactured by Exo Terra). In the right corner behind the rock I place a small plant of the hydrangea species. A few branches from a pear tree are placed in the enclosures for climbing. In addition a flat shallow water dish is placed in each enclosure.



I never rain or mist baby king cobras and keep humidity levels around 60% as baby king cobras easily get respiratory problems or lung infections from which most of them die I believe this is combined with associated stress. Often keepers force feed ‘pinkie’ mice to king cobra babies, again many of them die due to the associated stress. In my opinion having the correct set-up is half the key to keeping and raising baby king cobras, this is especially true during the first 3 months of life which are the hardest. If the baby king cobra goes into a shed cycle or into the ‘blue’ as I like to call it, I increase the humidity level drastically by misting them twice a day. I only do this with babies up to 8 months of age. After this age their skin seems to change in structure, then if misted or rained on during the ‘blue’ period the chance of needing to peel your king cobra out of his old skin is increased as the old skin seems to become glued to the new skin if wet.

Depending on the locality, most Chinese, Burmese, Thai and Malayan king cobra babies will feed on gecko (*Hemidactylus* ssp.) or corn snake (*Pantherophis guttata*) directly after their first shed, some king cobra babies even take ‘pinkie’ mice from the start but this is more out of luck than a general rule. Indonesian (Java, Borneo and Sumatra) king cobra babies generally only start feeding on *Elaphe radiata* and *E. flavolineata* and need to be weaned on to corn snakes, by placing an *Elaphe radiata* in a box along with several corn snakes this scent transfer process is fairly easy. If a baby king cobra does not start feeding on his own it can be force fed the first two inches a baby corn snake, and then if the baby king cobra is carefully put down it will start swallowing the prey automatically.

It is most important that a baby king cobra feels comfortable with feeding on snakes dead or alive. As they gain confidence eating, which a good set-up will help, they will become ‘garbage bins’ and will always be gehouhungry. I feed baby king cobras ever second or third day with a baby corn snake that is small enough not to completely gorge the baby king cobra, but large enough to fit in the baby king cobra without hindering its activity. The corn snake is placed in a small container and fed as many ‘pinkie’ mice as it will take, I then kill it and stuff it some more with ‘pinkie’ mice or cow heart and then feed it to the baby king cobra. I also feed during the ‘blue period’ generally all accept food during this time. A hungry king cobra will be active for many hours. After feeding king cobra babies tend to drink a lot. I make sure they have fresh water on a daily basis. They only drink fresh water.



With this set-up and feeding schedule I succeed in raising king cobra babies, they grow fast and change colours quickly. My Chinese Banded king cobra baby grew from 35 cm (1ft) to 183 cm (6ft).

Some keepers decide to switch their baby king cobras food over to rodents like rat pups at around 4 months of age and they do this successfully. I prefer to feed them snakes until they reach a size at which they can eat small rats that are weaned from the mother. This just makes life easier.

Some of my king cobras I will always keep feeding on snakes, as feeding rodents might affect the fertility of king cobras in captivity. A few long term and experienced king cobra breeders have found out that king cobra females which were fed on prey other than snakes only breed for 2 years after capture from the wild. After a break of 7-8 years the females will breed again, this can perhaps be food related or be the very nature of the king cobra to breed only once or twice in many years.

Set-up for king cobra babies of 3-4 months

At 3-4 months of age I start to decorate their enclosures to a more natural looking habitat with some live plants and more branches to climb on, baby king cobras are very curious and observant snakes, I have the

feeling they may be self-aware and learn things by observation. Altering items in their enclosures keeps them busy and active, if no changes are undertaken in the enclosures of king cobra babies they tend to get lazy and become slow feeders, for me this is sign that they need behaviourally enrichment and by adding and removing things in their enclosure this is. Feeding live corn snakes to the king cobras gives them a stimulation to exhibit a natural hunting display. Often snakes are taken to the water bowl to be drowned or when grabbed by the head the skull will be crushed which can be clearly heard. If they seize a snake in the middle or on the tail it will often take over an hour before the venom takes effect. Even in the 'blue' period of the shedding cycle they remain hungry.

By 8-9 months the king cobra babies are large enough to move to a new enclosure I use enclosures of 80x50x50 cm, double ventilation similar to the hatchling set-up. I no longer use a spotlight but install two 25 watt clear Philips light bulbs. They emit a good light and also some heat. These enclosures get decorated fully with live plants; I use mostly plants like Banana, Bamboo, Rushes (*Juncus*), Ferns, *Monstera* and other strong non-poisonous plants. I also use tree roots, tree bark and vines and fruit tree branches for climbing and crawling material. Some rocks are used for decoration. The water bowl is replaced with a full glass 2 litre (½ gallon) bowl, which gets cleaned on a daily basis. Due to the live plants the humidity level is around 60-70%, however the temperature has an average of 25°C in the coolest place, generally areas under large leaves in the corner of the enclosures are never higher than 25 °C. The warmest place is directly beneath the light bulbs and is around 37°C.



Juvenile king cobras eat less often than the younger hatchling; I feed them once every 4-5 days with a corn snake similar in size to the juvenile king cobra. These corn snakes are again fed as many mice as they want before being fed to the king cobra. I feed them dead corn snakes as the fight to kill live prey will destroy the interior of the enclosure. It takes a king cobra around 20-30 minutes to swallow the prey after that they will drink about 100-150 ml of water, so ensure they have fresh water. They will digest for 2-3 days before they become active and hungry again. I let them crawl around for another 2-4 days before I feed them again, interestingly for king cobras, 99% of the time they do their faeces in the water bowl, so only after that is clean do they get fed.

At 10-12 months the baby king cobras are real king cobra in size and around 130- 160 cm (4.3-5.3ft) and thumb thick. They become more active during this time and crawl almost continuously around in their enclosures it is then time to move them to larger terrariums, with a minimum size of 120x60x60 cm.

A king cobra of 12-14 months will have fully lost its juvenile colours and patterns, except for the banded

forms of king cobra that change colouration and maintain the band markings. I think this is the age that you can start to switch a king cobra over to feed on rats.

Feeding king cobras

In the wild king cobras prey mainly on snakes and the occasional monitor lizard. Hatchlings are known to eat small lizards and geckos.

In captivity the feeding of snakes or monitor lizards to king cobras is hard to maintain especially for larger king cobras that need to be fed larger snakes like reticulated or Burmese pythons. For this reason most keepers decide to wean their king cobras over to rodents which can require patience since it can be a difficult job. Not all locality types of king cobra transfer easily over to rats. Malayan king cobras are supposed to be the easiest of the king cobras to switch to rodents, Chinese Banded king cobras are also quite easy in switching over to rats.



Feeding hatchling king cobras can be difficult and in fact many baby king cobras die in captivity because of inexperienced keepers being unable to persuade them to eat. Different breeders and keepers have different theories about raising and feeding baby king cobras. Some, like Indonesian (Java, Sumatra) king cobras only feed on snakes from their same locality. Others are quite easy to start on corn snakes (*Pantherophis guttatus*). Some accept dead prey others only live food. Some snake keepers suggest force feeding them with 'pinkies' or using 'pinkie' pumps, but this is not a method I suggest. Baby king cobras are fragile slender snakes that can be damaged and harmed quite easily they also die easily from stress.

The greatest success I have with raising baby king cobras is simply feeding them corn snakes stuffed with 'pinkie' mice or cow heart to give some extra nutrition and feeding them 3-4 times a week even during the shedding period. As they reach a length of 150-180 (6-7 ft) their head and body is thick enough to eat adult mice or a small rat, which can easily be attached to a piece of snake. A yearling king cobra will eat the snake and end up with the mouse or rat in their mouth which they just swallow, at each subsequent feeding

a smaller piece of snake gets attached to the mouse or rat until the time you only need to scent the prey with a piece of snake. Some king cobras will eventually feed on unscented rats.

Larger imported king cobras the so called ‘wild caught’ king cobras will probably only accept snakes as food. The Malayan, Thai, Burma and Vietnam king cobra will do well on small reticulated or Burmese pythons but those from other localities like Indonesian, especially the ones from the islands of Java and Sumatra, eat only Radiated Rat snakes (*Elaphe radiata*) or Striped Rat snakes (*Elaphe flavolineata*) some of them will take blood pythons (*Python curtus*) as well.



An easy way to switch imported king cobras to feed on rats is to stitch with thread or cotton half of a snake to a rat, and use smaller pieces of snake with each feeding similar to the method described above for yearling king cobras. Another good way is to take 1 large corn snake, 1 kg of cow heart, 2 eggs and a can of lamb or cow based cat food. Place this all in a blender until it’s a thick soup (you may need to add a little water). Freeze this as cubes and defrost what you need. This ‘snake soup’ can be used to scent rodents so the king cobra will think the rat you offer is a snake.

I feed juvenile king cobras every 3-4 times a week, yearlings 1-2 times a week, adults 2 times a week. I prefer to give my animals smaller prey items and feed them more often as this produces a more active snake. King cobras metabolism is designed to feed on snakes and they swell-up enormously if fed big rats, which visibly bother the animal.

Make sure king cobras always have fresh water to drink; they tend to drink a lot after every feeding. A German breeder of king cobra feeds his snakes on sausages made out of 100% cow heart, he has kept his snakes fed on these sausages for over 13 years now and the pair has produced in these 13 years 3 clutches of eggs that hatched.

Feeding Habits

Juvenile king cobras need to feel confident before they feed on their own; if they feed on their own they are quite persistent in hunting down and holding on to prey. The small Indonesian king cobra babies when first introduced to a corn snake were absolutely terrified of it. When the corn snake was switched for a radiated rat snake the king cobra would immediately go in hunting mode approaching the rat snake and grabbing it, when the radiated rat snake bit the king cobra it was released and grabbed again in the correct orientation. After the first feed most will take corn snakes often hesitantly, however they seem to sharpen their hunting skill with practice. Initially they just bite their prey at the tail or mid body, but after a few feedings they

learn that a firm neck or head bite gives much better results (I think most king cobras crush the skull or break the neck of their prey, instead of using venom to kill the hunted feeder snake).

Most hatchling king cobras will hunt their prey from above. They crawl up to the highest point in their enclosure and look down over the floor for prey, if prey is found the baby king cobra descends with lightning speed onto their prey. If they are patient and let their venom do the job it will take 20- 45 minutes before the feeder snake is fully dead and ready for swallowing. It surprised me that many feeder snakes just give up when they are grabbed on the head or neck by a king cobra. The process of swallowing the prey proceeds surprisingly fast.

Qweeny shedded skin *(Ophiophagus hannah)*

Qweeny shedded her skin on monday 18th of july 2010, and she hatched from the egg on the 19th of july 2010 and she is changed in size and colour to a different snake

The banding stay strong on this fresh shed kingcobra yearling

Size is important 161 cm of kingcobra in exactly 1 year :)
The 9th of october the day I got her

Elapid Pages - Richard Mastenbroek 2011©

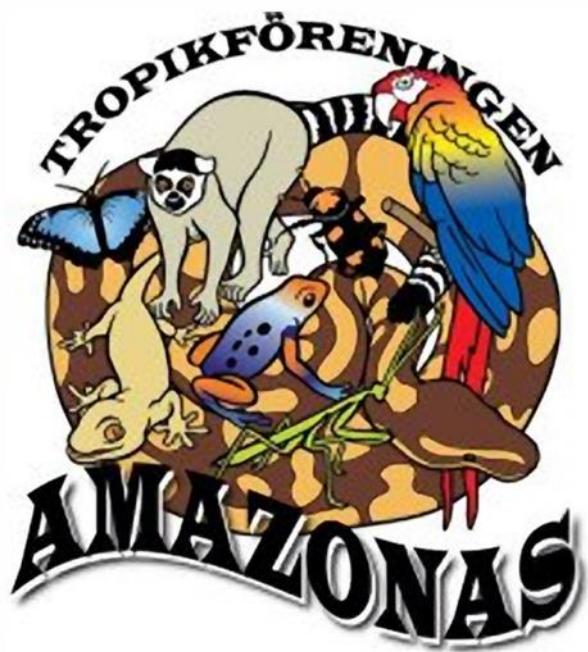
Rodent feeding king cobras have a different feeding behaviour, some take prey violently out of the feeding tongs, while others prefer to sniff around a prey for ages picking it up by the tail starting to eat and determining that's not the way, they drop the rat and pick it up mid body taking another 10 minutes of trying to swallow the rat sideways, which does not work, finally they find the head and then the prey gets swallowed. The process of swallowing a large rat is not as graceful as for natural rodent eating snakes. It's more similar to a hamburger eating contest were you need to unceremoniously push your food in. King cobras that are raised on rats eat them as gracefully as snakes that are natural rodent feeders.

The question, whether or not it is better to feed snakes or rodents is a question that provides a lot of debate in the venomous snake keeping community. Many snake keepers have no trouble feeding rodents to their snakes but feeding snakes to snakes is, for many keepers, a problem it may even be an emotional issue. It is known for a fact that king cobras live for up to 20 years on rodents. Personally, I think that raising hatchlings on snakes is important as they grow bigger and the rate of survival during the first year is much higher when fed with snakes.



Until now it has not been proven that the feeding of rodents affects the health of a king cobra in captivity. This might not be completely true, since feeding of solely rodents to king cobras might affect the fertility of the snakes. A few keepers/breeders of king cobras found out that freshly imported snakes that had been switched to rodents only breed for 2-3 years after capture and being exported for the pet trade. These breeding king cobras stopped breeding for years, some for up to 10 years, before they produced a fertile clutch of eggs that hatched. This could be a clue that the feeding of rodents or other unnatural food to king cobras might have more of an influence than expected.

English corrections: Dr. Lawrence J. Smith.



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A short trip to Crete in May 2013

By Kristian Nilsson
Photo: © Kristian Nilsson

We took the flight from Skavsta Nykoping, and landed in Chania, Crete.

There, we took the bus to the hotel. We met the hotel manager, and got a good room. The hotel offered welcome drinks at the pool bar. We rested a while and then packed up our things before we explored our immediate surroundings. Of course, we were pretty hungry. So we went shopping some typical Cretan food in a nearby store. The food and drink was excellent. And with a little food in the stomach, we grabbed our cameras and began to look around for plants and animals in the area. The most common bird in the area was **The Eurasian Collared Dove** "*Streptopelia decaocto*" .



It is easier to travel with someone who has similar interests. So the trip was rewarding in many ways, as we both like plants, reptiles and other animals. And Crete is the ideal location if you like to see and photograph fun plants and animals. When you are in place for as little as ten days, you have to take the opportunity to utilize time efficiently. So we rented a car and went around to various interesting locations to take pictures. Many plants in Crete has its origins in Africa, which could make it a little more difficult to determine their species. But most did well naming. The flora is large and interesting on the island. Here are some of the species seen as well in gardens as in the wild.



Myrtle "Myrtus communis"



Heartleaf Ice plant "Aptenia cordifolia"



The Violet Carpenter Bee “*Xylocopa violacea*” on a Hottentot fig/Sour fig “*Carpobrotus edulis*”



Purple Heart or the Purple Wandering Jew “*Tradescantia pallida*”

Well, it would be a tremendous mass of plant images one after another, which would bore you readers. Of course you see a lot of lizards running and hiding in the vegetation. **The Cretan wall lizard** “*Podarcis cretensis*” looks different in different places on the island, which makes one believe that it may be different subspecies. Some say it's kind of a *Podarcis erhardii*, or that its origin is from *erhardii*. Anyway the species are very similar.



This specimen was found in the mountains at fairly high altitude. Overall I think that the lizards were more beautiful at a higher altitude than along the coast. The reason for this is I do not know? Just an observation we made. In this particular area there were plenty of lizards. But also a lot of butterflies and other interesting insects, birds and fun plants. We spent many hours in the field, and enjoyed every second. The weather alternated sharply between heat, reeking rain and strong winds and moderate temperatures. So we found different animals at different weather conditions, which was interesting. There is a considerable variation in the look of the lizards. Many specimens disappeared as soon as I came near, while others just sat there and posed for me. Especially lizards at high altitude were more willing to pose than those on the coast.



At Elafonisi island the wall lizards looks like this.

In this area there
was a big fire
some years ago.



The Balkan Green Lizard, "Lacerta trilineata" was seen mostly on the coast. However, some we found at a little higher altitude where they were hiding in burrows.

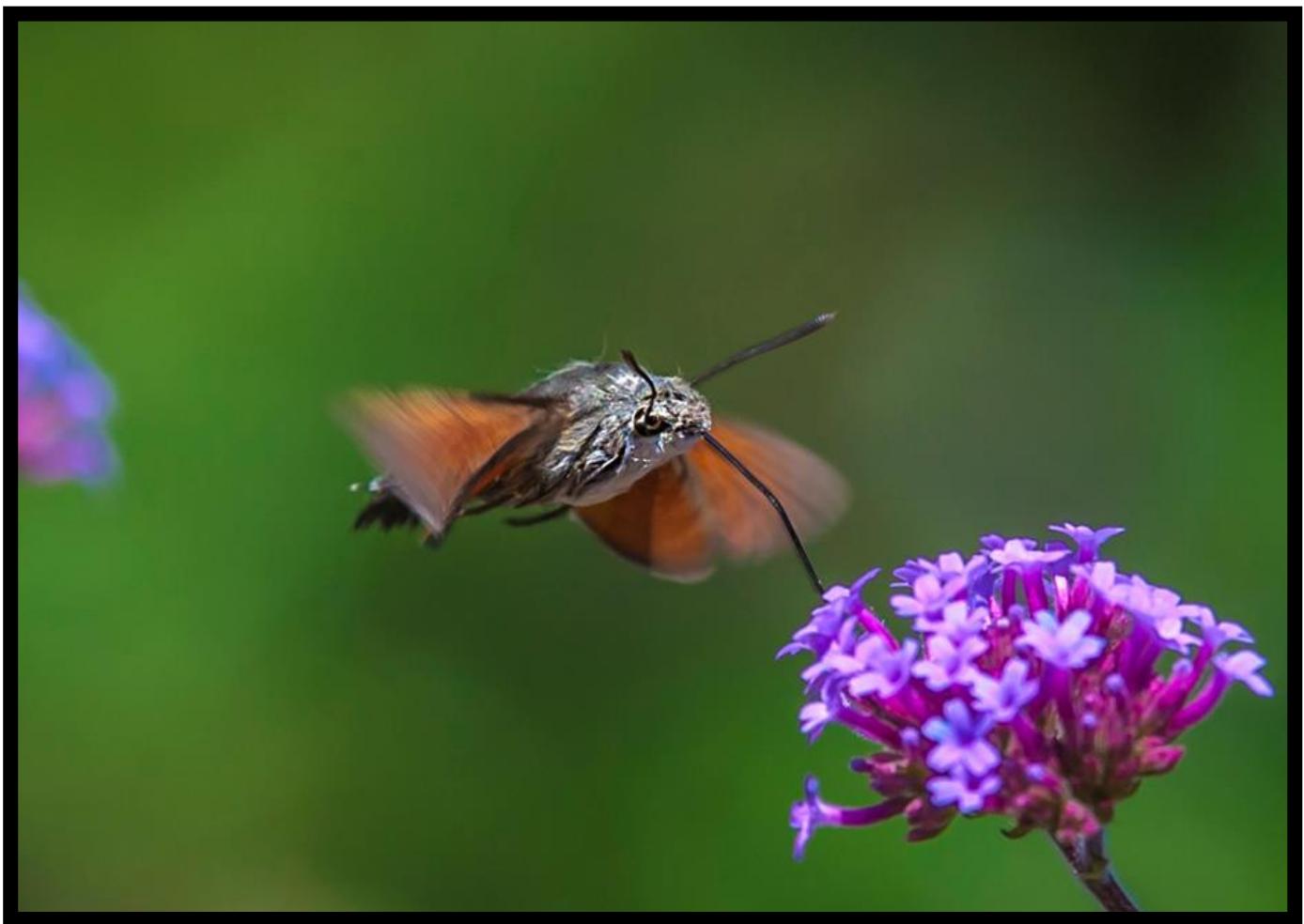


These ran around close to the coast and hid mostly in the Hottentot fig / Sour fig "Carpobrotus edulis" or among fallen dry palm leaves.



These two we found in the same burrow.

When you walk around like this looking for objects, you can get lucky and catch sight of a the **Hummingbird Hawk-moth** "Macroglossum stellatarum" flying from flower to flower. They never seem to be completely still, and never lands. So you have to be quick if you want to get some good pictures.





I followed this for a while, and got some decent pictures. The light was extremely bright, making it difficult to get in the right position.

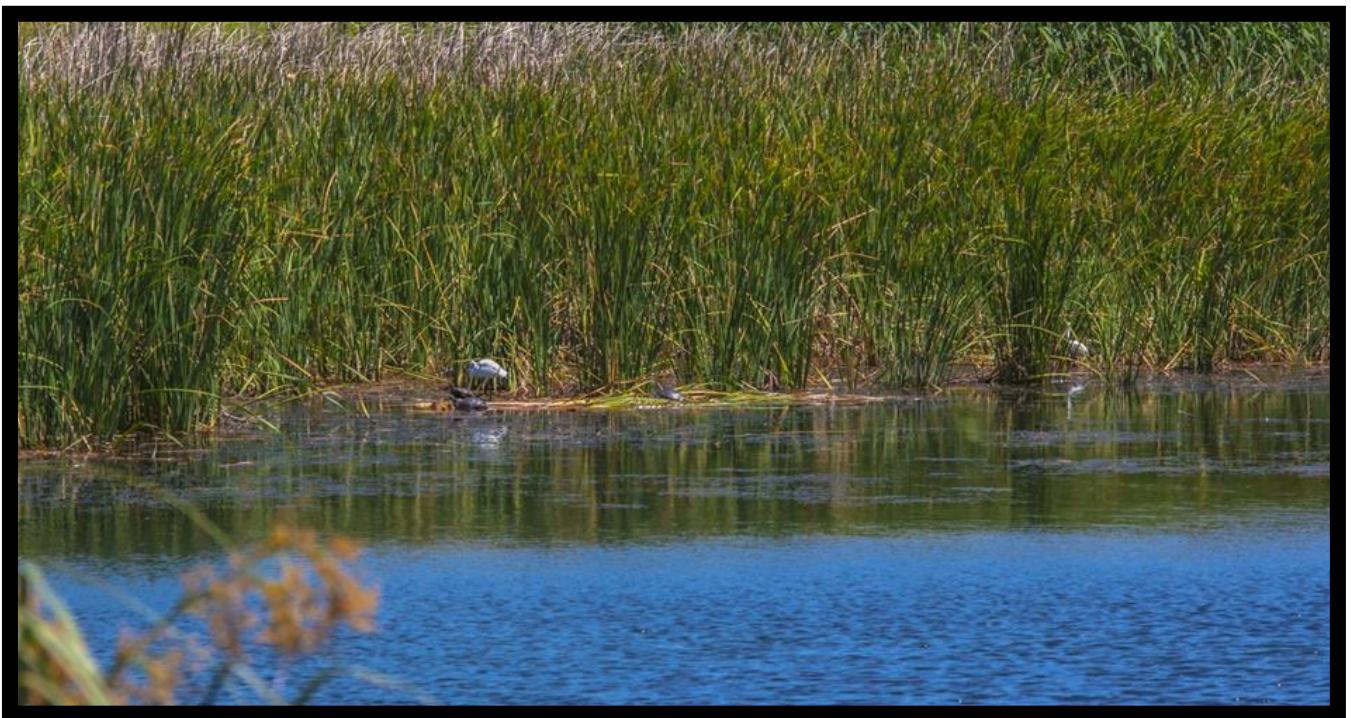


After a long day with a lot of pictures, we had the opportunity to see a wonderful sunset by the sea.

It looked like this pretty much every evening.



The next day we took a trip to Lake Agia to look for **The Balcan terrapin** "*Mauremys rivulata*" and **the American bullfrog** "*Rana catesbeiana*" or as some people call it "*Lithobates catesbeianus*". Which is correct is up to each one.



Far away on the other side of the lake, you could see large specimens lying there, with a few **Great Egrets** "*Ardea alba*" right next to them.



The Freshwater turtles in the lake were very many, and fun to study.

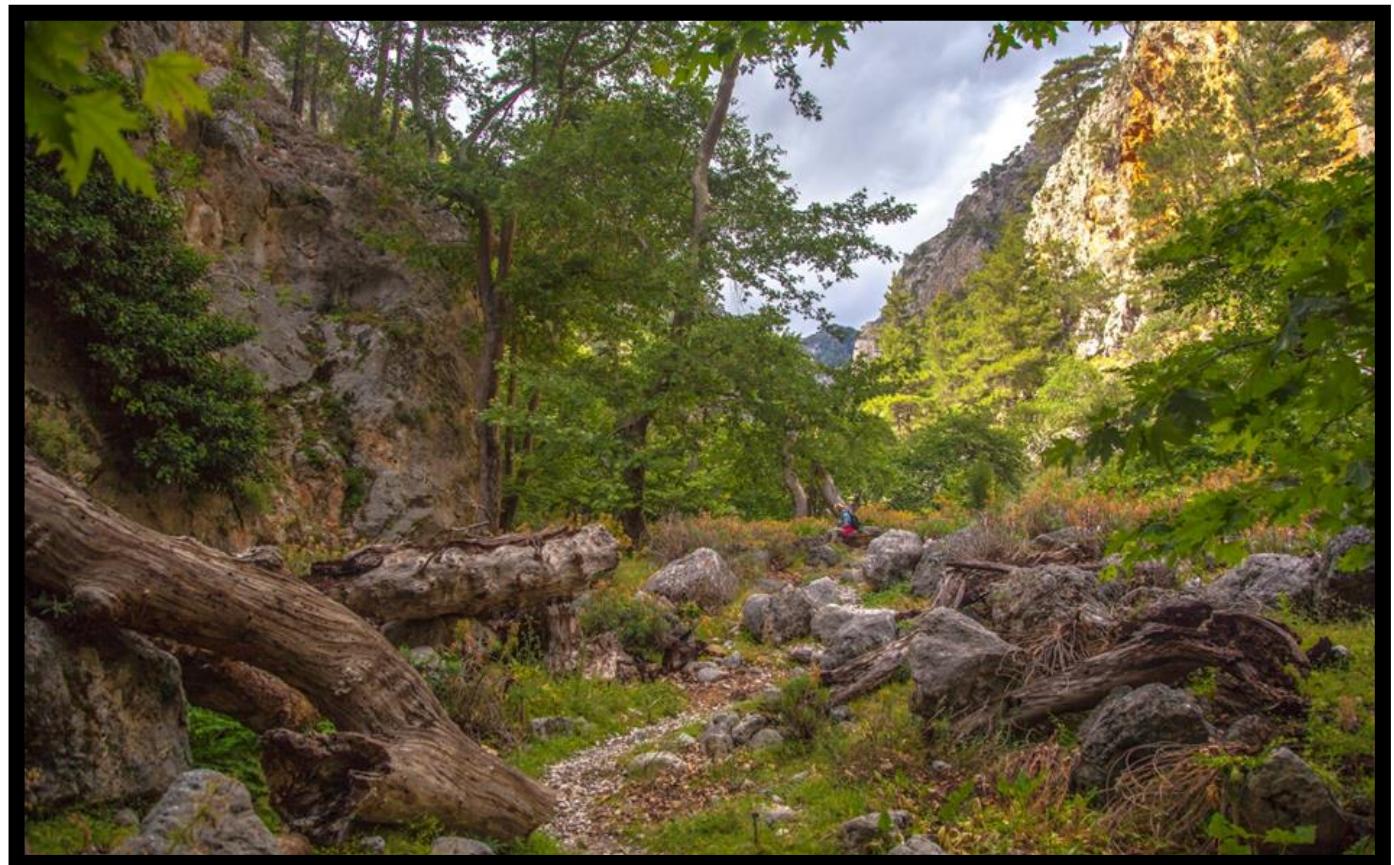
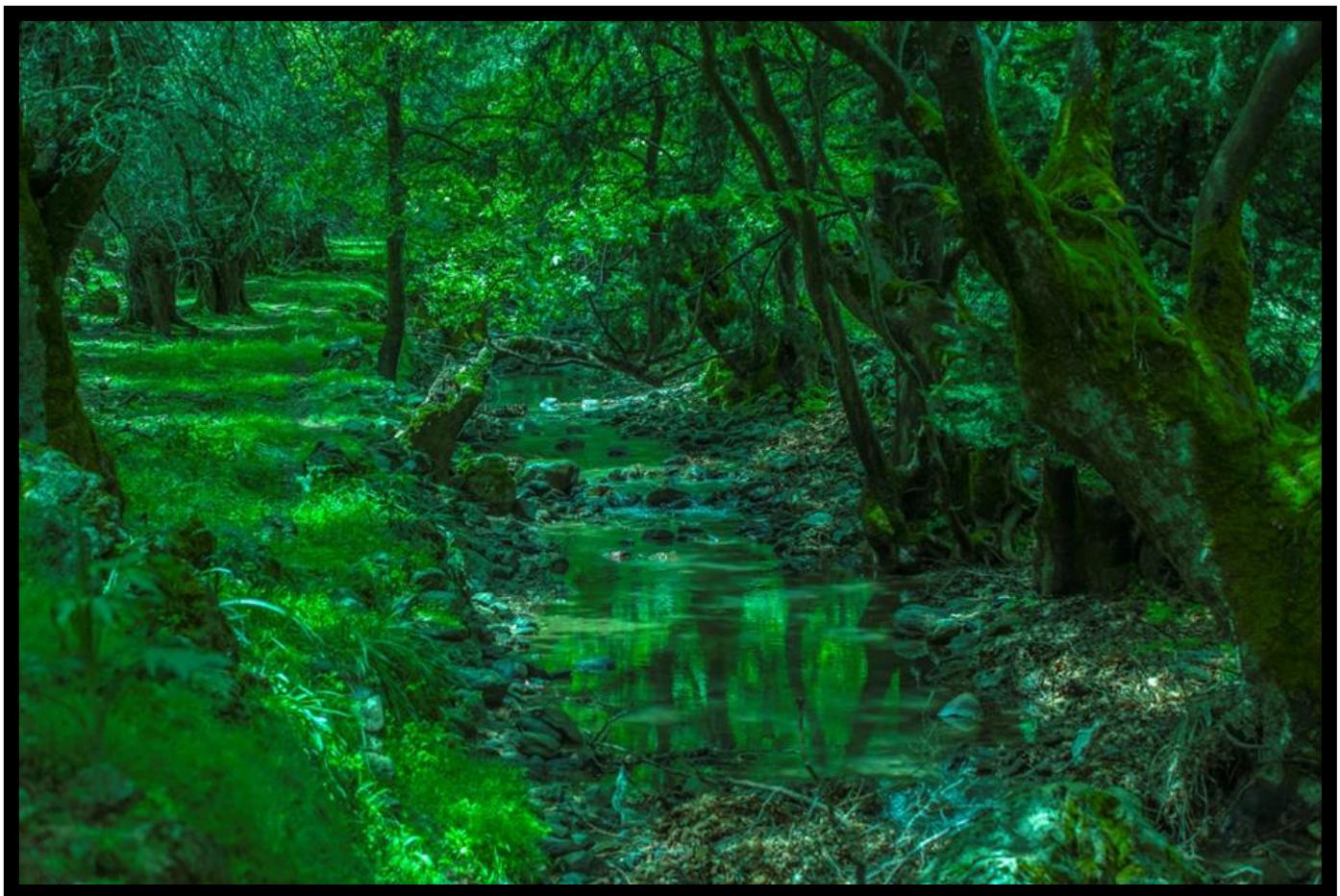


The frogs were both in the lake and in nearby ditches and puddles. Unfortunately it's not a native species. They were thrown by a merchant who imported them to eat them. When he got tired of them, he threw them into the lake of Agia. Now it has more or less supplanted the native species **the Cretan Frog** "*Pelophylax cretensis*". The one on top is a younger one, and the one below a bigger adult specimen.



Then we took a tour to Irini gorge. A wonderful place with a lot of flowers, where we got to see **The Kri-Kri** "Capra aegagrus creticus" also called the **Cretan goat Agrimi**, or **Cretan Ibex** climbing on rock walls.







Here in Irini gorge we took a lot of pictures of plants. But I will not make this a too long story. So I jump to our next trip, that went to the fantastic island Elafonisi. To reach the island you have to walk in the water. Then you enter a paradise. The Sea turtles lay their eggs here. And the pink sand on the island is protected and endangered. In the fall it gathers thousands of birders here, as it passes an incredible variety of species across the island. A perfect time for a photographer to get pictures.





Marram grass “*Ammophila arenaria*” on Elafonisi. A lot of Cretan wall lizards here.



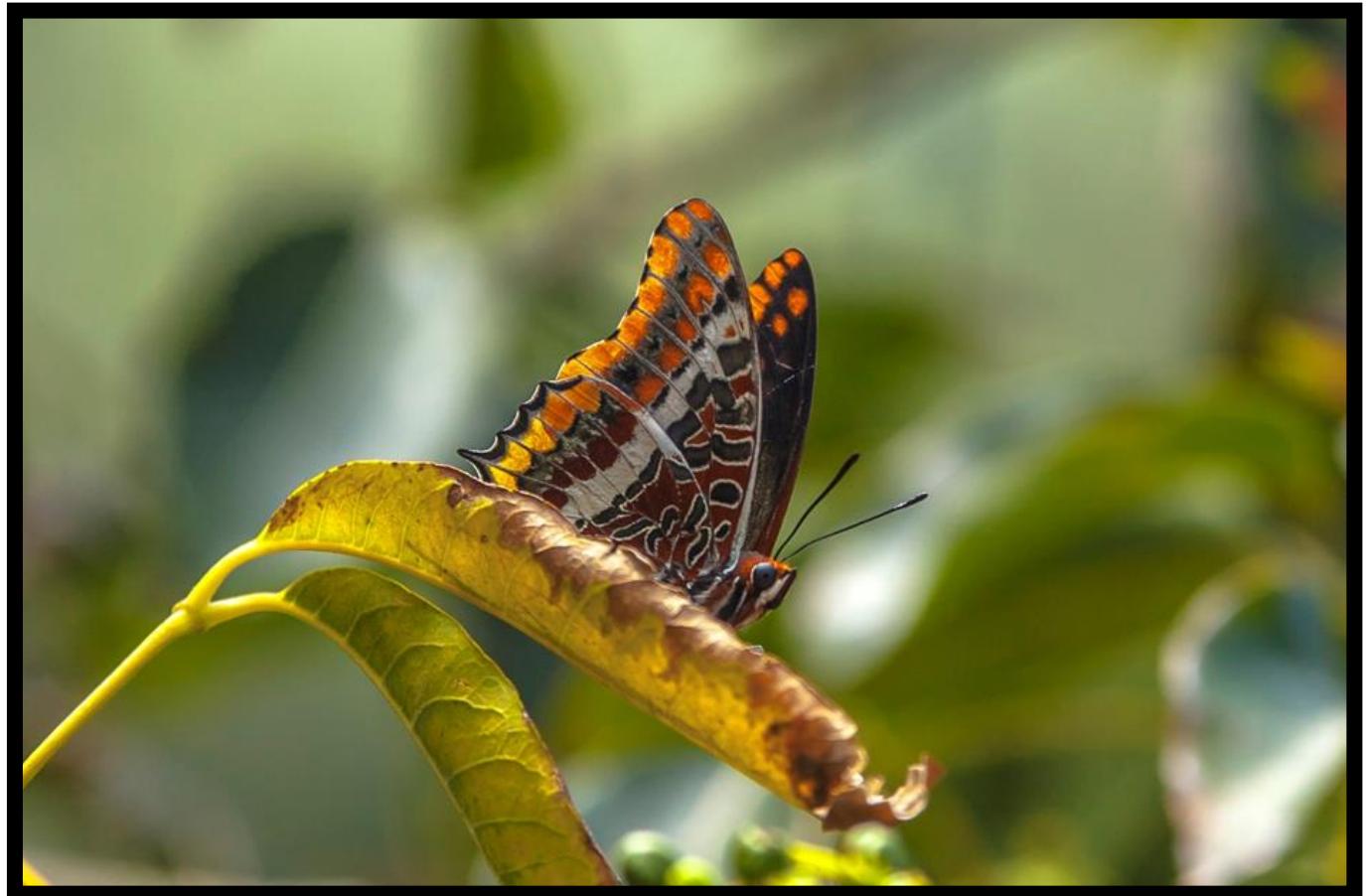
Flower bud “*Centaurea pumilio*” growing in the sand of Elafonisi.



Pictures of the lizards here, you can see in the beginning of my story.



A Cretan Hornet "Vespa crabro". Really big ones that you can see almost everywhere.



There's also a big variety of beautiful butterflies on the island.



On the way back to the hotel, we found this **Balkan Whip Snake** "Hierophis gemonensis" killed by a car. Always sad to make these findings. This one actually was found on very high altitude. Not where I thought I should find them. Mostly I saw them hiding under Hottentot fig plants close to old ruins.



Other fun animals include the **Sardinian Warbler** "Sylvia melanocephala", a bird that does not sit still for many seconds.



But if you're patient you get your pictures in the end.





Ants are common everywhere in the surroundings.



Hottentot fig/Highway ice plant/Sour fig “*Carpobrotus edulis*” a common plant on the island, with it's origin in south Africa.



The **Caper bush**, also called **Flinders rose** “*Capparis spinosa*” you can see in many places .

Written by Kristian Nilsson

All photos taken by the author.

The Adder (*Vipera b. berus* L.) has many enemies; The Lesser Weasel (*Mustela nivalis* L.) has now proven to be one of them!

By Leif G. Westrin

Photo: © Leif G Westrin & Nils Kristian Nilsson

The winter year 2012 -2013 was the hardest in living memory, despite a mild start. Autumn of 2012 was in its initial mild and did not offer any major surprises temperature or weather-wise. The snow came with it's protective soft white cover and remained here in the Mälardalen region until the end of February. The snowmelt was pleased the last week of February and the first Adders crawled out from their protective burrows in the bottom of the earth up to the weak late winter sun as they normally done in recent years.



April 6 2013, a frosty cold morning. ©Leif G. Westrin



Deep frozen ditches. ©Leif G. Westrin

Month of March, when the weather changed and a stubborn time with ice days began when the temperature never went above 0 degrees Celsius marks the whole month. A high pressure parked over Sweden and an icy cold air stream from the Polar Regions spread across Europe. The cruel cold to extremely cold night temperatures did not give up. The previous protective snow cover was more or less gone on for the reptile's strategic locations. Night temperatures went obstinately down until below -20 degrees Celsius several nights in a row. Disaster !



The hibernation site. ©Leif G. Westrin



Adder's basking place on the site. ©Leif G. Westrin

As stated above it was made the first observations of The Adder (*Vipera b. berus* L.) around Stockholm in late February by us and others. The extreme cold days came with the March entry. A hibernation place for both adders and grass snakes (*Natrix n. natrix* L.) are located a couple of kilometers outside Strängnäs and have in recent years frequently visited by Nils Kristian Nilsson and I, both nature photographers. We made several observations of the Adder in late February and March on the locality despite the extremely low temperatures with specially the cruel night. One individual was almost always ahead despite the polar cold at night and with an air temperature never exceeding -5 degrees Celsius during the day;-Incredibly! Many reptiles have most likely fallen for icy cold deep down in the earth and never comes up, sad !



Two basking Adders. ©Leif G. Westrin



The unfortunate Adder ©Leif G. Westrin

The snakes where the hibernation site is are vulnerable to natural predation by buzzards (*Buteo buteo* L.). Even some of the occasional brave crows (*Corvus corone cornix* L.) do their part. In recent times, even those rooting constantly increasing in number boars (*Sus scrofa* L.) were added as a threat to everything on the ground alive. When we stop the car, we usually see the buzzard sitting on top of a juniper bush among the stones, it lifts shyly and sail away when we walk out of the car.



*A Buzzard (*Buteo buteo*) near the hibernation site*

©Leif G. Westrin



A Buzzard on the ground. ©Leif G. Westrin

It was the sixth day of April in 2012 and it was a day when we would get an experience of nature in the picture that we would never forget, we were lucky enough to find two adders lying together as we intensively photographed. Suddenly another one interested comes up from the ground. A rustle in the grass, a brownish shade, Nils shoot in faith that there is a wood mouse. But on his screen scrolling his pictures shows the face of an alert weasel out. A Lesser Weasel (*Mustela nivalis* L.) it was!



Nils and an Adder near Mälaren. ©Leif G. Westrin



The first sight of the Weasel deep in the vegetation.

©Nils Kristian Nilsson

The tiny weasel disappeared quickly down under the large boulders and we heard him rustling around in the underworld. Suddenly it up comes with an adder in the mouth, our shutters clatter! The weasel losing its heavy prey and disappears down, so I lift up the dead adder and take a photo of the dead snake by the neck bitten. Then the weasel comes up looking for its lost prey. It is completely fearless and looks at me, so I put the snake back to him as unashamedly just takes it, pulled it down under in the hole and continues his meal underground.



The little predator near his dropped Adder.

©Nils Kristian Nilsson



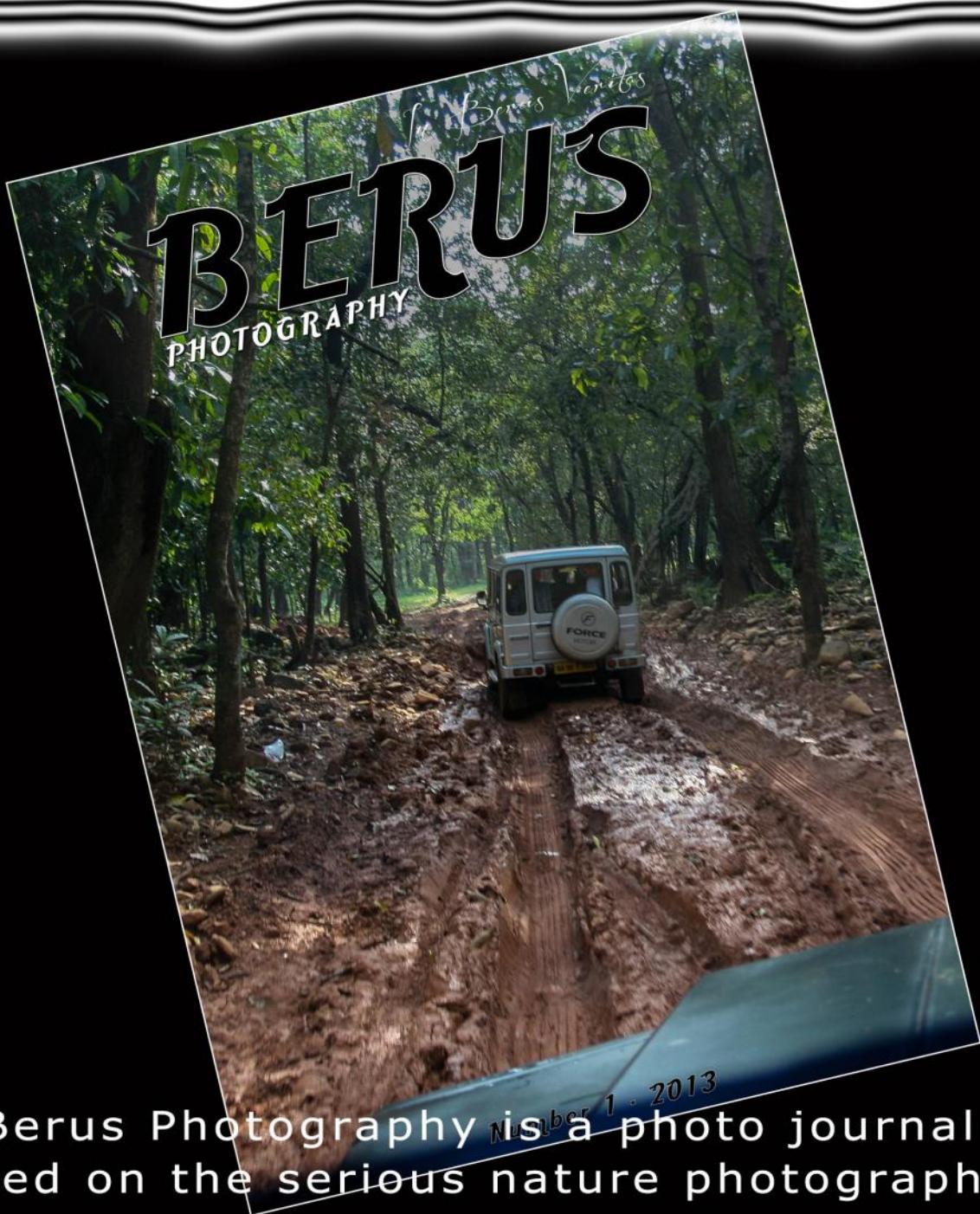
And he pulled it down deep under the boulder.

©Leif G. Westrin

Month of April had finally come to it for too long deep frozen Sweden and we: Nils Kristian and I went around to different locations around Strängnäs with our cameras already rigged in the back seat. The temperature had risen far above zero and the spring sun shone glistening over the neighborhood, a beautiful day to live. The day was fine and gave great dividends for us pictorially.

We photographed a waxwing (*Bombycilla garrulus*) sitting in a mistletoe as a beginning in the early morning and found a black adder down at the stone bridge foundations at the banks of Mälaren. Skylarks and eagles high up in the azure blue skies and crispy air in the morning we enjoyed. We took pictures of the White-tailed Eagle (*Haliaeetus albicilla* and other nice birds, we found 8 nice adders and a single and tired Common Lizard (*Zootoca vivipara J.*) We had the luck to see a real predator in work;-A really good day to live... for us!

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A northern finding of Smoothsnake (*Coronella austriaca*).

By Miqe Erikze'n
Photo: © Miqe Erikze'n

I got a tip in the last week of June from a person that know my interest in reptiles and amphibians, that she had seen a "rather long, brown snake a few days ago" on a dirt road not far from Knutby (an area between Uppsala and Norrtälje (see map)), where I live.

It made me really curious, since I know that there have been a couple of reports on Smoothsnakes from that particular area before. Nothing that has been confirmed by any person having knowledge about snakes though, and as far as I know, no pictures has been taken. The most reliable report is about 10 kilometers north from the designated area.



An old farm on the locality. ©Miqe Erikzén



Ib The new locality for the Smooth Snake. ©Miqe Erikzén

I got into my car at the 9:th of July 2013 about 11:00 CET and drove off looking for the signs and landmarks she had told me to look for, and found the area that she had told me about.

I grabbed my camera and walked the last part carefully looking all over on the dirt road, just in case there would be a snake on it and I didn't want to run it over with the car.

Slowly and with my camera ready, I ended up close to an old abandoned cottage, where I started to look closer around old stonewalls and pieces of old cracked concrete without seeing anything in particular. All of a sudden, at the base of the old concrete staircase I saw something that looked like a Common Adder (*Vipera b. berus*) laying on top of some old planks with last years grass folded over. I took a few more steps and looked a little closer, because it didn't look quite right for being an Adder.

It wasn't! It was a Smoothsnake! Quickly down on one knee to make the camera a bit more steady since I had started to tremble in excitement, and took a few photos. The snake hadn't moved at all, so I took a few more steps towards it and took more pictures. I could actually come really close to it, and I started to think about that, when I realized that it was in shed.

It took notice of me and flowed like water into the grass and under the planks. What a feeling! It almost felt like finding a nice snake in a fieldtrip in another country!

I started to walk away from the spot and down on the road again, taking notice of the weather which was cloudy with a ray of sun every now and then, about 20° Celsius and just a gentle weak wind. An hour later came a thunderstorm.



The first contact! ©Miqe Erikzèn



4 A little nearer pic ©Miqe Erikzèn

From the road I walked around an old barn just to see if I could find anything else, since I already was out “herping” and just when I entered an cracked concrete driveway, there was something that caught my eye. Another snake, but this time I didn’t get to see what it was since it just disappeared down in the ground. Oh, well. Turned around to go back to the car when I spotted a snake in the last years grass, and this one was also a Smoothsnake. I didn’t think that I would find any at all in this area, and was really surprised to find two



*A close up of the *Coronella austriaca*. ©Miqe Erikzèn*



The other specimen. ©Miqe Erikzèn

I will absolutely go back in a week or so, to see if I can see the one that was in shed and the other one that disappeared before I had a chance to see what it was.

END

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