

GAZELLE

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مجموعة دبي للتاريخ الطبيعي

DUBAI NATURAL HISTORY GROUP

PO Box 9234, Dubai, United Arab Emirates

Members' News

Angela and Stephen Manthorpe will be commencing another periodic sabbatical this month. The world will be their oyster but Dubai will continue to be their base, so we hope to see them from time to time. Angela and Stephen's association with the DNHG dates from the early 1990s, and they served for a year as interim chairpersons. They returned to Dubai in 2005 and Angela has been our Speaker Coordinator for the past several years.



Angela Manthorpe receives a DNHG rock

Carol Goodwright and Sylais Sanghvi, back in England, recently visited the Raptor Foundation in Huntingdon. The Foundation started off as a rescue centre and is home to over 200 birds of prey of

more than 40 species. All are rescued - either abandoned pets, injured or illegally imported birds. Where possible, birds are rehabilitated and released into the wild. Apparently, the orange eyes indicate that these are birds who hunt at dusk and dawn.



Eagle owl

Geoff Sanderson wrote that the entry his company submitted for the London based Clear Villages competition was awarded second place. There were over 200 entries in this world wide sustainable cities competition so they were very happy with a second. Congratulations, Geoff and team!

DNHG Membership Renewal Time!

DNHG Membership remains a bargain at Dhs.100 for couples and Dh. 50 for singles. You can join or renew at our meetings or by sending us your details and a cheque made out to: Lloyds TSB Bank account no. 60600669933501. (Please note we cannot cash cheques made out to the DNHG. Please also note our account number has changed.) Subscriptions paid now are good through to September 2010.

DNHG membership entitles you to participate in field trips and helps pay for our lecture hall, publication and distribution of our monthly newsletter, the *Gazelle*, additions to our library, incidental expenses of speakers and occasional special projects. **Please see note p.2**

This month's Contributors

The Editor would like to thank the following for their reports and contributions:

Marijcke Jongbloed
Carol Goodwright
Lamjed El-Kefi
Gary Feulner
Jeff Imes
and Di



Under the patronage of H.E. Sheikh Nahayan bin Mubarak Al Nahayan



Salalah, Oman with Pradeep Radhakrishna
November 26-29

This trip is finalised and happily falls on Eid al Adha. Salalah always delivers many surprises and pleasures! Contact Pradeep wgarnet@emirates.net.ae

There are many and varied trips planned for the new year, and there will be more announced for December when finalised.

Notices:

Welcome Aboard: New Speaker Coordinators

Thanks to Martina Fella and Michelle Sinclair, who have stepped up to fill the considerable vacancy left by Angela Manthorpe's 'retirement' as DNHG Speaker Coordinator. Martina will take primary responsibility, with assistance from Michelle. The role of Speaker Coordinator is one of our most important functions. There is a great deal that goes into making our monthly lectures 'happen', a fact which is most evident only when things do *not* go according to plan. Martina and Michelle will be familiar to many members as they are frequent attendees at both monthly lectures and field trips.

Wanted: Librarian

The DNHG is in need of someone to oversee the care of the DNHG's library collection, including liaison with the Librarian at our monthly meeting place, Emirates Academy of Hospitality Management, where the library is housed. Recently-acquired books remain to be catalogued, along with an eclectic backlog of individual reprints and photocopies of scientific papers, booklets, etc. The Librarian is also invited to read and report on items in our collection.. If you are interested, please contact Chairman

Gary Feulner or Vice Chairman Valerie Chalmers.

Membership Renewal

Please note that receipt of the GAZELLE and entitlement to participate in field trips depends on current membership. If you have not renewed your membership by our January meeting, we will remove your name from the list of current members, removing these entitlements. Contact our membership secretary Anindita by email: anin@eim.ae

Our Speakers For Members' Night

Martina Fella was born and raised in the Bavarian countryside in Germany. After working for five years, she financed studies in English and Geography at university by working as cabin crew, and this also gave her the opportunity to come to the Middle East 11 years ago. She later married, had her daughter, and continues to work, travel and explore.

Although her occupational history does not have a lot to do with the natural environment, her heart has always belonged to anything to do with nature. Back in Germany she was an active member of an environmental protection society as well as the gardening association of my home village. She is still an active member of the latter and particularly involved in the preservation of old and little known species of apples, pears and other domesticated fruit trees. In her spare time she loves being outdoors hiking, diving and exploring. Recent trips took her to Masirah Island (twice this year), the mangrove swamps of Umm Al Quwain, the Austrian Alps and the wild Ardeche River in Southern France. During her

time with Emirates Airline she had the opportunity to explore many exiting destinations world wide, however, Dhaka in Bangladesh has by far been the one that I remember most. After having got in touch with the Sisters of Charity Orphanage (Mother Theresa) there, she used to request flights to Dhaka every month, delivering needed goods and donations to the orphanage. She is still in touch with the orphanage, but due to family commitments has not been able to travel there recently. Now that her daughter is older, she would like to visit the orphanage again soon.

Dr Sandra Knutesen is Assistant Professor of Environmental Science in the Department of Biology and Chemistry at the American University of Sharjah. She is also Environmental Internship Coordinator. Although she spends her life in academia, Sandra likes to put a decidedly practical slant on environmental studies, and believes that hands-on involvement is the key to change. She will tell us about one such project.

Valerie Chalmers has lived in Dubai for 34 years. She taught biology at the Latifa School For Girls for 19 years and retired in 2006. Her interests in plants and fossils stem from her plant ecology courses and one-year geology course which formed part of her B.Sc Special Honours Degree in Botany from King's College, London University. She furthered her interests when she joined the Ladies Ecology Group in 1980 and started to collect both UAE plants and fossils. She is a founder member of the DNHG and is currently vice-chairman, secretary and plant and fossil recorder. Valerie has regularly visited the Natural History Museum in London for many years and members of the Palaeontology Department, notably Dr Andrew Smith and Dr Noel Morris, have helped with the identification of fossils which she has collected and have maintained close links with her.



A Short History of the ALT

A number of questions were posed at our November lecture (given by Jane Budd on the Arabian leopard) about the work of the Arabian Leopard Trust (ALT) in relation to conservation and captive breeding of the Arabian leopard in cooperation with the government of Sharjah. We asked Dr. Marijcke Jongbloed, the Coordinator of the ALT and a DNHG life member, to say a few words for the benefit of members more newly arrived in the UAE.

Dr Jongbloed wrote: The Arabian Leopard Trust (ALT) was active from 1993 till 2003. Its beginning followed on the successful campaign that Christian Gross and I had conducted for the breeding of the Gordon's wild cat.

I decided to use the interest that had been created by the newspaper reports about this campaign to try and raise a similar interest for the highly endangered Arabian leopard.



Gordon's wild cat

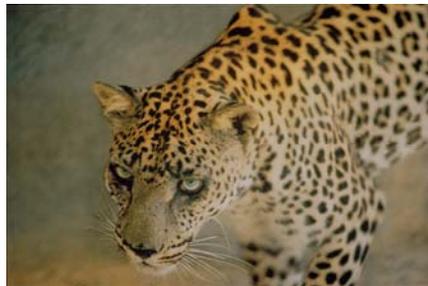
A handful of people answered my call for cooperation and on July 3rd 1993 the ALT came into being.

We established four targets:

- Raising public awareness about Arabian wildlife and the dangers it faces.
- Captive breeding of endangered animals that were already in captivity.
- Research into the status of wildlife and what was needed to preserve it.
- Assist in the creation of nature reserves within the UAE.

In the first two years we raised funds for our educational cam-

paigns, and for the research about the status of wildlife in the Emirates, inviting Chris and Tilde Stuart over from South Africa to look at the situation in the Hajar and Musandam mountains. Several animals that had been saved from the various suqs and private gardens (Rueppell's foxes, caracals, an owl, an eagle and hedgehogs) were put together in newly built cages in the founder's garden and joined the breeding wildcats and some non-Arabian animals there. Before long we acquired our flagship animal, Arnold, the Arabian leopard from Sana'a, who was quartered in the garden of Christian Gross.



Arabian leopard

The Ruler of Sharjah, HH Sh. Sultan bin Mohammad al Qasimi, had been in contact with me for some time about an area along the Sharjah-Dhaid road, where he wanted to establish a Desert Park. During one of our discussions he mentioned that he thought leopards would need a quiet place for breeding and he decided to donate a five square km piece of land near Fili (in Sharjah emirate) for the establishment of a breeding centre for leopards.

At the ALT we were all fired up about the new chance, and doubled our efforts to raise enough funds to build a fence around the area and then the necessary facilities for the breeding. However, it turned out to be impossible to reach even that goal. And as the director of the breeding center of Sultan Qaboos pointed out to me: 'And that is just the start. You cannot really kick off a breeding program if you are not assured of a regular income for food, maintenance, staff and all the other costs.'

Then, when in July 1995 the sheikh asked me to become the manager of his Desert park, that he was developing at intersection 8, he told me: 'And then I will build the breeding center that you have been campaigning for'. I wasted no time in accepting his offer. I gave up doctoring and moved to Sharjah where in the next few years a children's farm, an enormous breeding center and finally a zoo were added to the natural history museum and the wildflower gardens that were already operating.

It had been my intention to establish places in the zoo where the donations of ALT members for the breeding program would be mentioned, for instance on signs on the cages or on a special plaque. But this idea was not accepted and we did not find a way to acknowledge all the goodwill and efforts of donors and volunteers, other than in our regular newsletter. In 2002, when it became clear that the work of the ALT was coming to an end, we produced the book *Working for Wildlife*, a copy of which was sent to all ALT members, schools and libraries.



This book gives an account of the full ten years of the ALT activities and mentions many of the generous corporate and private donors by name. I think there must be a copy of this book in the DNHG library for newcomers to have a look at. Even though the money raised for fences was in the end not used for fences, it was defi-



nately used for promoting our targets. The ALT was operated entirely by non-paid volunteers (including the Stuarts) except for two drivers and later for two field workers and a secretary, who were salaried personnel. The office was run from the founder's home, which was also the home for the two drivers.

There were various reasons for discontinuing the ALT in 2003: the Worldwide Fund for nature (WWF) had established itself in the country and was approaching the same donors that had supported us throughout the previous decade. At the same time the Sharjah authorities were no longer allowing the ALT to have a trade licence, so that we could not organize any fund-raising activities any more. And lastly, I was planning to leave the country and could not find anyone to continue the necessary work.



Blanford fox

In the ten years of ALT activity, the public awareness of the environment and the wild flora and fauna had increased perceptibly. Three expeditions of the Stuarts in consecutive years had given us a good idea what the status of local wildlife was and that protection was really necessary. They established that there were still some Arabian tahr in the Hajar mountains – these had been thought to be extinct since the early 1980s. Also the Egyptian spiny mouse was caught and recorded alive for the first time – til then it was only known as road kill. A new find for the Emirates was the Blanford or Royal fox, that turned out to be present in sufficient numbers, but had not been noticed before (at least not by westerners) due to its secretive (nocturnal) behaviour.

With the magnificent breeding center operating smoothly, and the Desert Park functioning to keep public awareness high, the only target we had not reached was the establishment of wildlife reserves. We had meetings with the representatives of the WWF and handed the results of our research over to them, hoping that they would be in an even better place than the ALT to convince the various governments that reserves were needed. From what I hear from time to time, some reserves have since been established, though none as yet for the Arabian leopard, who needs a huge territory. It would probably have to be a transborder reserve in the Musandam extending more southward into the Hajar. However, since Oman is concentrating on the mountains around Salalah for the conservation of leopards, I think the chances for our leopards to be free are pretty slim.

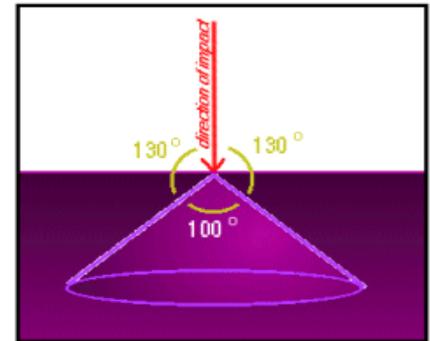
The years of the ALT were exciting years that I remember with pleasure, even though there were some pretty hard times too. I think we started the 'environment' ball rolling and it seems that this has not stopped yet! In the mean time one of our ex-members is trying very hard to do a similar thing in Yemen under far more exacting circumstances than we had in the UAE. Let's hope he has success too! *Thanks to Dr Marijcke Jongbloed, who is now based in Gironde, France, for text and photographs.*

Flint Knapping

Flint knapping is the art of fashioning stone tools and ornaments from rock. The use of stone tools in the Emirates likely began to die out with the introduction of copper smelting and discovery of bronze in the Bronze Age, beginning about 3000 BC. In North America the Stone Age lasted much longer.

Several natural and man-made materials can be used in flint knapping, including chert (flint), obsidian, Jasper, agate, and quartzite. The stone must fracture in a reproducible and controllable manner. Most of the

natural rocks suitable for knapping are classified as chalcedony, a microcrystalline form of silica. Obsidian is a natural volcanic glass. Geologically and chemically, there is no difference between chert and flint; both are massive opaque forms of chalcedony.



Hertzian Cone / Cone of Force

Some cherts and other knapping material must be heat treated to make them workable (that is, easier to remove more uniform and longer flakes when struck). Good knapping materials produce conchoidal fracture patterns when struck, and the finer-grained materials produce longer and more-easily controlled flakes. The fracture angle is about 50 to 55 degrees from the direction of the strike. Much of the skill needed for flint knapping involves learning to hold the stone at a proper angle to the direction of strike and striking with the proper force. There are two basic methods of removing flakes from a stone, percussion flaking and pressure flaking.



Two flakes have been removed from this piece of chert left in the UAE desert

Percussion flaking is used to remove a large amount of mass and thin the raw material by striking the stone with a blunt tool. It involves building a proper platform (striking point) by chipping and abrading



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Plants - Valerie Chalmers

Seashells - Recorder needed!

The recorders are not necessarily scientific experts in their designated fields. In fact, most are not. However, they are interested and knowledgeable amateurs - please contact them if you have any interesting reports or queries.

The intention is that information will be channelled through to the *Gazelle* editor, so new information can be shared with all our readers.



(grinding) an edge. Proper chipping isolates and sets the angle of the platform. Grinding removes weak areas that would dissipate the striking energy and prevent the fracture from propagating through the rock. A piece of chert that has been thinned and roughly shaped to the desired size is termed a preform. Flakes tend to follow ridge lines, so platforms usually are prepared where ridge lines intersect the edge of the material. Platforms must be prepared below the center of the rock mass for proper flake removal.

Failed fractures commonly occur as hinge fractures (flake energy propagates out of the material on the side the flake is taken from), step fractures (flake energy is insufficient for the amount of mass to be removed, and flake terminates abruptly), and plunge fractures (flake energy propagates into the material and exits the opposite side from the side the flake is taken from).



Percussion flaking tools

Percussion flaking tools are usually rounded and heavy. The proper weight and degree of softness are important considerations in choosing a tool. Weight will determine force applied to the stone and amount of mass that can be removed. Softness will determine the ability of the tool to grab onto the stone and tear off a flake. Hammerstones (rounded hard stones) and large antlers were traditionally used to strike a prepared platform and remove flakes. The modern knapper is more likely to use a copper billet (solid copper rod or flat plate, or rounded copper cap mounted on a wood or metal handle). The modern tools are

used because they are cheap, easily obtained, and long lasting.

Pressure flaking is used to remove small masses of material in a more controlled manner by applying a steady pressure with a pointed tool. Preparation for pressure flaking also involves making a platform at the correct angle and abrading the platform surface. Abrading keeps the edge structurally stable as the pressure is applied and also serves to keep the tool from sliding off the platform before the flake is released.

Pressure flaking tools are long and pointed. The tool must have the proper tip size and degree of softness. Hand-held flaking tools were traditionally made from small antler tines, possibly mounted in a wood handle. Copper rods are now commonly used because they are convenient and can be easily reshaped by filing as they wear down. A specialized flaking tool (called an Ishi stick), about 45 cm long, is held against body to provide much more leverage. Most of the force required to pressure flake is provided by squeezing the legs together, not directly by the hand or arm. Shearing tools (a flat rib bone or piece of copper) are often used to trim and square up rough edges in preparation for pressure flaking.

Cuts to the hands are a fairly common hazard among flint knappers, especially when using the more glass-like materials such as obsidian. A more insidious and long-term affliction can come from flint knapping in closed spaces. Small clouds of razor sharp silica fragments, produced when the rock edges are abraded, can enter the lungs and cause scarring of the lung tissues. This can eventually lead to a type of lung cancer called silicosis. *Thanks to Jeff Imes for his diagrams and this abridged version of his text.*





Slugs and Slime

Beauty is ultimately in the eye of the beholder, but the leopard slug *Limax maximus* makes a better claim to beauty than many of its drab cousins. The one in the photo is from my family home on Long Island, where I still take out the trash when I visit, and I found it one damp morning at the bottom of the plastic bin reserved for paper waste.

I set it out to watch for a while, and photograph (although my mother forbade me to bring it into the house). Somewhat later I took time to troll for more information on the internet – a luxury I don't usually have in Dubai. This produced, as always, some interesting biological facts (along with many innovative suggestions by gardeners for interdicting slugs generally, such as barriers made of copper wire).



Limax maximus

Among other things, not all leopard slugs are as attractively coloured as the one I found. They vary widely in hue and in the presence or absence of patterning – so much so that another common name is the great grey slug. They are, however, among the largest slugs, being 6 to 8 inches (15-20 cm) as adults. They are considered to be native to Europe (first named by Linnaeus himself) but they have spread to many other areas as well, apparently mostly by accident. However, unlike some slug species, they are not especially prolific and do not seem to become a pest species.

They are omnivores and their diet (in addition to waste paper) includes leaves (live and dead), fungus and – more unusually – other slugs and worms. Consistent with

the imperatives of predation, they move faster than most other snails. They have been clocked at speeds four times that of a comparably sized herbivorous slug.

I learned, too, that their slime trails are far more than just a convenience to allow them smooth passage over rough terrain (including, famously, a knife's edge). The slime, it is said, conveys information to other snails about the identity and status of the trail-maker, as well as the direction of travel. Thus by following the slime trail, a slug can find a mate or, in the case of a predator, can find dinner.

They can be creatures of habit, too. I returned "my" slug to what I thought was a more hospitable habitat in the backyard garden adjacent to the trash bins, so I was quizzical when my mother reported that it was back in the waste paper bin. Could it be another? But in fact, further surfing on the web disclosed that the leopard slug is considered to have a well-developed 'homing' instinct and often returns to a favorite resting place.

The leopard slug is also well known and distinctive for its elaborate and somewhat bizarre mating rituals, all accomplished while dangling from along thread of mucus. But it is best to leave some secrets untold – or for members to surf for themselves.
Report by Gary Feulner

Bird Watching Trip

T'was a hot morning but nonetheless twenty-one amateur bird watchers joined David Bradford (DNHG's chief 'twitcher' par excellence) at the Privot Fields before progressing onwards to Ras Al Khor. A novice twitcher has no hope of remembering all the details of those that were sighted but a helpful hint, on the long ladder of recognition, is to take two or three birds which are of particular interest to one and make a point of learning all about them: difference between male / female; immature / mature;

call and flight, and when mastered, add a further group.

Wondering where to start? Well, on 23rd October 2009 we saw in total 46 species, so you'd be spoiled for choice, even though it's only a little over half the number on the last trip. (Binish Roobas' list can be obtained from the Editor.) On behalf of us all, many thanks to David for his guidance and time. They were much appreciated! *Report by Di.*

Stargazing in October

I was worried while setting-off to the stargazing site as the sky was quite cloudy and dusty at the start! But the UAE nights usually surprised me with clearer sky to come deeper in the night. At dusk we pointed the telescope to the 1/4moon and gazed at all the craters and mareas. Along the terminator, the limit line between the dark side and the lit side, we could see the area where the Apollo 11 mission has landed, on the border between Mare Tranquillitatis and Mare Nectaris.

By this time a nice group started gathering around. We went on reading the stars scattered in the darker sky. We found the "summer triangle" made by the stars Deneb, Vega, and Altair, went on to identifying the overhead constellations of Cygnus the swan, the square of Pegasus, faint Andromeda, and the "w" of Cassiopeia that would lead us to find Polaris the north star, 25deg high above the horizon as expected.

By now the sky was clearer and we pointed the telescope to the mighty planet Jupiter; everybody enjoyed seeing it in colour with its dark lanes, flanked with the four bright Galilean moons in line. Then it was break time for everyone to enjoy the starry sky in his own way, while I was trying to align the telescope on two elusive stars!

Past 9:30pm, most started leaving to head back to the sodium lit Du-



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bai sky. By the time everybody left (and Aziz had been told he was banned from the next stargaze and sent off to his tent), I was standing in the dark with a surprisingly clear and starry sky! I went back to align the scope on one star only, Fomalhaut, south in Pisces Austrinus and took the time to visit some deep sky wonders that I spotted a few nights earlier. The helpful telescope gears roared me to a good view of Albireo the orange-blue coloured double star, 410 light years away in Cygnus, then to M57 the "Ring Nebula" west of Vega. This planetary nebula, the remnant of a long- time-dying supernova, was at some 1400 light years. It looked like a white donut in the eye piece. Then I took a last hop back past Fomalhaut again and up to find Andromeda galaxy's faint lights at 2.4M light years away. It was past 11pm when I switched off the telescope - time to pack the scope, the tent and deep sleeping Aziz all in the back of the car and head back to my light polluted world. *Thanks to Lamjed El-Kef for his report.*

More Members' News

Helga Meyer wrote: I am still so excited that Willy and I had the good fortune on Saturday morning to be swimming with a turtle at the beach opposite Mercato. Her head was HUGE, and the top of it was orange, as were her flippers. We were surprised by the brilliant colour. We could not see the colours and the pattern of the carapace under the water as it was very milky on Saturday. Visibility under water was only about 2 metres, as we tried to dive and swim after her.

She had beautiful big eyes, so dark around them that it looked like a fantastic make-up job! We thought she seemed old, with lots of barnacles on her head. Even the locals said that this is a first for them to see a turtle so close to the beach and in this small bay.

As usual, no camera at hand! I went back on Sunday and today with my underwater one-way camera, but no luck. She is probably

far, far away now! We searched on the internet and attach a photo of what we think looks closest to what we saw in the sea.



Hawksbill turtle

Look the Part!

The DNHG has navy blue sweat shirts, with the DNHG emblem embroidered in silver. Sizes: L & XL Dh65/- each.

Also, silver grey polo shirts with the DNHG emblem embroidered in black. Sizes: M, L & XL Dh50/- each. The quality of both items is excellent. See Val Chalmers at the next meeting.

Dubai Natural History Group Programme

Lectures at Emirates Academy of Hospitality Management, 7.30 for 8.00pm

- Dec 6 Members' Night:
The Dubai Ladies Ecology Group: a forerunner of the DNHG – Val Chalmers
Dhaka: A Journey Into Another World – Martina Fella
The Hatta Litter Study – Sandra Knutesen
- Jan 10 Dr Richard Hornby – [Topic to be announced]
- Feb 7 Dr. John W. Reynolds – Earthworms
- Mar 7 Dr. Drew Gardner – Bats
- April 4 Dr. Susanne Hofstra – Ancient Mesopotamian & Mediterranean Scripts

Field Trips (Members only, please.)

- November 20-21: Camping at Donkey-Fox Wadi – Mike Lorrigan
- November 26-29: Salalah, Oman – Pradeep Radhakrishna

Field trip details or changes may be announced or confirmed by e-mail circular.