

GAZELLE

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مجموعة دبي للتاريخ الطبيعي

DUBAI NATURAL HISTORY GROUP

PO Box 9234, Dubai, United Arab Emirates

Members' News

Comings and Goings...

Brian Jolly played host for a week to a visiting palaeontology student, enroute to study in Australia for a year. This proved to be a good excuse for some in-country touring – a four-day odyssey that took them to various museums and natural sites. A highlight was a detour to collect a supply of nummulites (disc-shaped, coin-sized, fossils of shelled protozoans of Eocene age) from the Jebel Hafit area. Brian has thoughtfully taken advantage of his recent experience to update the DNHG's file of information about local museums – which reminds us to republish it sometime soon. Sadly, Brian will be leaving Dubai at the end of August, after a long(ish) career with Dubal (and with the DNHG). We wish him well on his return to England and hope to stay in touch. We understand he plans to return from time to time

Christiane and Phil Salvador and their children will be moving to Jakarta, Indonesia in a few months. They have written to say that they have enjoyed being DNHG members, attending lectures and going on the field trips. "Mostly we have enjoyed the people in the group." They don't have a new address yet, but they can always be reached at phil.salvador@conocophillips.com.

Indonesia offers tremendous opportunities for nature lovers – we hope they'll find time to enjoy it.

Geoff Cosson quotes Gen. Douglas MacArthur to let us know that he will be returning to the UAE after a two-year absence. In September, Geoff will become the Head of the secondary section at Al Ain English School and is already planning to look up the Al-Ain NHG.

It was "old home week" when **Lex Nielsen** got together with long-time DNHG members **Catherine and Salah Al-Halyan** and **Anne-Marie Bui** in Dubai recently. Lex and **Glenice Aitken** returned to Australia almost 6 years ago, but they have kept in touch and have been generous in offering their continued support. Lex has been back intermittently on business. Lex and Glenice are also memorialised by a volume they donated to the DNHG Library, called *The Future-Eaters*, by Tim Flannery. It describes and explains Australia's distinctive flora and fauna (past and present) and the all-important influence of El Niño on the ecology of the island continent. Flannery, a palaeontologist by training, is an award-winning writer and the book is a friendly and authoritative introduction to many general principles of ecology.

DNHG Membership

September marks the start of the new DNHG membership year. DNHG membership remains a bargain at Dhs. 100 for couples and Dh. 50 for singles. You can join or renew at meetings or by sending us a cheque made out to Lloyds Bank account no. 173746 posted to us at PO Box 9234, Dubai. (Please note we *cannot* cash cheques made out to the DNHG.)

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.

New members who joined in May or June will be enrolled automatically for the coming membership year (Sep 04-Sep 05).

This month's Contributors

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

Barbara Couldrey
Gary Feulner
Drew Gardner



Field Trips etc ...

Here we go!

Larry Woods' Dump Trip

Fri 17th Sept, 8.00am

A return visit to the "Larry Woods Dumpsite" in Sharjah will be led by Dumpster himself on Friday, 17 September. To beat the heat, this fieldtrip will start at 8:00 am sharp. Coming from Dubai, the gathering point can be found by taking Emirates Road (311) to National Paints circle, going right away from Sharjah, taking the first turnaround, and then the first right-hand turn. You will find Larry there in a white Land Rover Discovery. The tour will run for 3-4 hours and will explore recent changes in the bird, plant and insect populations due to developments at and near the dumpsite, ongoing reclamation and restoration work there, a nearby archeological site, and the flora and fauna on the campus of the American University of Sharjah. Efforts are also being made to secure access to the Sharjah Botanical Gardens for the group. The trip will end with lunch at Chez Woods on the AUS campus. Please bring your camera and binoculars, a snack and lunch, water, a hat, and good walking shoes. A pair of gloves would also be useful as we are not sure what has been placed in the dump. If you are coming, please let Larry know in advance on 06-515-2513 (office) or 06-515-3139 (home). On the day, you can contact him on his mobile at 050-7575389 should you need assistance or get lost along the way.

Fossil Hunting and Tombs at Jebel Buhays (jointly with ENHG Abu Dhabi)

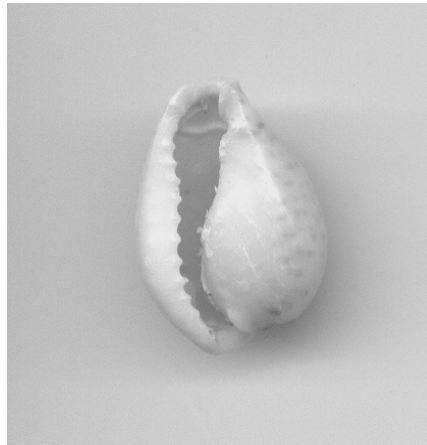
October 8

Valerie Chalmers is coordinating this trip with Allistree Fisher of the ENHG. As yet no details are available, but they will appear in the September Gazelle and in the ENHG newsletter.

Shelling with Sandy

November , date TBA

Dr Sandy Fowler will be climbing Kilimanjaro in late September, but after return and recovery will lead one of his very informative shelling trips. Children are welcome, and Sandy's enthusiasm is definitely contagious. Details closer to the time.



Your Help Is Wanted

The DNHG still needs (1) a librarian and (2) additional field trip coordinator for the coming year.

Librarian: The hardest work is done. Outgoing librarian Deanne White has overseen the move and cataloguing of most of the DNHG library collection, which is now open for use at the Emirates Academy library. This is the most accessible that our library collection has ever been, and we hope that it will prove a convenient reference. However, a small amount of new and miscellaneous material remains to be catalogued, and a modest amount of regular effort is required to ensure that systems are observed and record-keeping is maintained.

Field trip coordinator: All who participate in our field trips seem to enjoy them, but it takes a certain amount of effort to make them

happen. The job description is to have or solicit ideas, identify and recruit potential trip leaders, and provide "how to" guidance and encouragement. This need not be done in a vacuum – the committee is available to assist, but committee members all have other primary responsibilities. At the moment, the DNHG is relying on a relatively small number of trip leaders. We are worried that a few of these are going to stop making suggestions, because every time they suggest an idea, they are asked to lead!

Our Next Speaker

Dr. Frederic Launay is a wildlife biologist who has worked in the Arabian Peninsula since 1989 on various conservation projects, beginning in Saudi Arabia where he helped to establish desert protected areas and conducted reintroduction of species such as Houbara bustard, Arabian oryx and gazelles.

In 1993, he joined the National Avian Research Centre in Abu Dhabi to lead NARC's work on the study and conservation of houbara bustard. During this time, he did extensive field work in all of Central Asia, Mongolia and China, as well as the UAE.

In 2001, he became Assistant Secretary General for Science & Research at ERWDA and in February 2001 he was also appointed as the Director of the newly created WWF-UAE office.

He holds a Ph.D. in animal ecology and is the Chairman of the IUCN/SSC Reintroduction Specialist Group and Coordinator of the IUCN/SSC/BirdLife Working Group on Houbara Bustard.

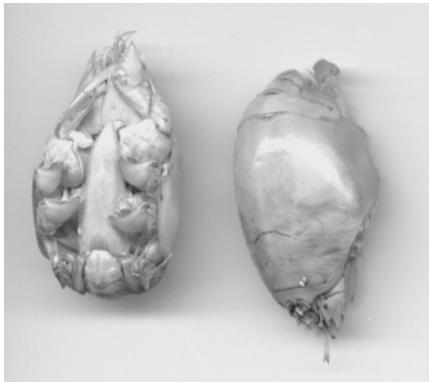


Mole Crabs: A Case Study

Anne Millen's introduction to "mole crabs" on Dubai's beaches is a good case study of the learning and identification process.

Step 1: Be attentive. Walking with Peter van Amsterdam on their regular 2.5 km stretch of Jumeirah beach, Anne encountered an area with numerous dead organisms of a sort she had not seen before. They were pellet-like in shape, 3cm long, white and smooth, with a brittle covering. They seemed to have lots of little feet tucked in, but Anne couldn't be sure if any limbs or parts of limbs were missing. She identified them as arthropods but wasn't willing to go much further.

Step 2: Photograph and/or collect. Anne did both. When she got home, she scanned her few specimens and put them in mild preservative, in the interest of both scientific inquiry and olfactory good sense.



Not telling you yet!

Step 3: Make inquiries. Anne passed the specimens to Gary Feulner, in the hope that he might recognize them. He didn't, but he was able to confirm that they were arthropods and, more particularly, crustaceans – the only significant group of arthropods that has successfully colonized the marine environment. Both Anne and Gary thought vaguely of so-called sand crabs, sometimes unearthed during the making of sand castles on the beach front, but neither had ever paid much attention to sand

crabs, nor seen them in the UAE.

Step 4: Identify suitable references. For this purpose, Gary pulled out his copy of *A Field Guide to the Seashores of Eastern Africa* by Matthew D. Richmond (a copy has also been acquired for the DNHG library). This book depicts a great many of the diverse forms of life that can be found on local seashores. Gary also pulled out Dr. Richard Hornby's paper in *Tribulus* 7.2 (1977), "A Survey of the Habitats, Invertebrate Fauna and Environmental Sensitivity of the Mainland Coast of the UAE, with Information on Status and Distribution of Crustaceans." That paper lists and comments on most of the crustacean species that can be found along UAE shores, but contains only a few photos.

Step 5: Examine the organism. This may seem elementary, but it helps to be sure what you're looking at. For example, which end is front and which is back? In this instance, the blunt end appeared to be the front, and the tapered end with the tiny filaments appeared to be the rear. This was consistent with a broad, tapering "breastplate" on the underside, and the fact that the stubby, curved legs seemed to point towards the tapered "rear" end. But wait a minute. Upon closer examination (and if you're Anne and Gary's age, it helps to use magnifying lenses) the "breastplate" unfolds to become a pointed tail, and the "filaments" at the "rear" prove to be tiny eyes on stalks and crustacean feeding apparatus.

Step 6: Comparison with references. The Richmond field guide depicts many, many kinds of crustaceans – barnacles, isopods, ostracods, hermit crabs, true crabs, lobsters and a zillion kinds of shrimp – but only a few that vaguely resembled the compact, streamlined organisms that Anne had found. Those were mole crabs (Superfamily *Hippoidea*). Immediately a bell rang! We were on the right track. Moles burrow, and if the unknown organism also burrowed, that would explain its

smooth shape, free of projecting appendages. Only eight species of mole crabs are known from the Western Indian Ocean and only one was shown in full in the book. It had a much rounder shape and different segmentation. But details of the head ends of two other species were also shown and one of these was extremely similar to the Dubai specimens, although it differed in certain particulars. At a guess, therefore, the Dubai organisms were another species of the same genus, *Emerita*.

Step 7: Comparison with known records. Switching to the Hornby paper revealed that Dick had in fact encountered mole crab in the UAE, but only a single species, *Emerita holthuisi*. Circumstantial evidence, to be sure, but short of finding a field guide to mole crabs, or actual identification by an expert, that's about as good a confirmation as one is likely to get. Hornby says of *E. holthuisi*: "This very distinctive species was found on six sandy shores with high wave energy, all on the north-eastern part of the Arabian Gulf shore, between Jumeira and Ras Al Khaimah.... Mole crabs are adept at burrowing into wet sand but will 'play possum' on dry sand, looking very dead." Hornby gives further insight into the learning process and scientific method as well, when he adds: "[Mole crabs] probably occur on all the sandy beaches along this stretch of coast but the technique for finding them, involving taking a sieve through shallow breaking surf, was not discovered until late in the survey."

Step 8: Consider other questions raised, or left unanswered. Here's one that members can research on their own, while building sand castles or sieving in the surf: Taking account of the overall shape, the folding tail, and the broad, stubby legs curved forward, does the mole crab in fact locomote backwards when it burrows, or for that matter, when it swims in the surf? Report by Gary Feulner and Anne Millen



Field Clips ...

E.mail your reports to pvana@emirates.net.ae, (Arial 10 justified) or deliver them to Anne Millen on floppy disk at monthly meetings.

New East Coast Orb Web Spider?

Minie van de Weg, a Fujeirah-based DNHG member, is known for keeping her eyes open, so when her letter and photos arrived recently, they were eagerly opened. In an East Coast tomato patch, Minie had seen and photographed a large, yellow-and-black banded orb web spider. The web showed a few of the zigzag white stabilimentum that are characteristic of the *Argiope* family of orb web spiders.

Also suspended in the web and foliage were a number of pale, irregular, roughly tube-like items, larger than the spider, that Minie at first took to be rolled up leaves of the tomato plant. "What are they doing there?" she wondered, until.... some time later she saw one burst open to release 200 or more tiny spiders!



Minie's tomato patch *Argiope* is similar in size to the large orb web spider common throughout the UAE, *Argiope cf. lobata*. Both also hang slightly "upside-down" near the center of their sub-vertical webs. But Minie's *Argiope* is readily distinguishable by its smooth outline (the body shape of *Argiope cf. lobata* is irregular or lobed) and most of all by its bright yellow coloration. In addition, the egg cases of the two are quite different.

Whereas Minie's *Argiope* produces silk-rolled tubes, the common *Argiope* constructs an egg case that resembles a small Arabic coffee cup with a cover.

Most likely the new *Argiope* has been introduced to Fujeirah, perhaps by ship or with agricultural or horticultural products. Minie's photo bears a certain resemblance to *Argiope bruennichi*, a species found in southern England, Europe and temperate Asia, including Japan, but no two reference photos of that species show exactly the same color pattern and in any case it is said to make its web near ground level, in grass and other low vegetation. Numerous other large *Argiopos* are known from Asia and the Americas, and a yellow-and-black color pattern is not uncommon.

Whatever it is, there may be more to come. Many of the tiny spiders, and their brethren (Minie says that several other egg cases were ready to burst, too), will probably take off by air, sailing on a silken thread, hoping to come to earth in a favorable place. This will give Minie and others something to watch out for.

And while we're on the subject,





Dubai Natural History Group Recorders

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off 344 0462
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Archaeology - Prof. John Fox

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Seashells - Sandy Fowler

res 344 2243
fax 344 2243
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Astronomy - Lamjed El-Kefi

res 06-5583 003
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Marine Life - Lamjed El-Kefi

Geology - Gary Feulner

res 306 5570
fax 330 3550

Insects - Gary Feulner

Fossils - Valerie Chalmers

res 349 4816,
fax 340 0990
vmc@latifaschool.co.ae

Plants - Valerie Chalmers

Mammals - **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.

does anyone know of an expert or institution that would be interested in studying the spider fauna of the UAE? Spiders remain a major gap in local natural history studies, although a recent contact represents a glimmer of light on this horizon. *Report by Gary Feulner*



Book Reviews

Tribulus 14.1

Tribulus, the twice yearly natural history journal published by the ENHG Abu Dhabi, is now in its 14th year. *Tribulus* was launched in order to create and maintain a collection of recordings, articles and analysis on topics of regional natural history, with an emphasis on the UAE and adjacent areas, and on original research.

Tribulus no. 14.1 (Spring/Summer 2004) was published in July and will be available to DNHG members commencing with our September 2004 lecture. The price is Dh. 15.

The latest issue includes principal articles on (1) the Al-Muraikhi House on Dalma Island, a unique and now-restored pearl merchant's house and stronghold, (2) the sometimes enigmatic stories of some half dozen WWII era airplane crashes in what is now the UAE, (3) research on the brain of the camel, including aspects of visual coordination and pain suppression, and (4) an account of tail signaling in a gecko endemic to

the Hajar Mountains.

In addition, *Tribulus* includes, as always, a number of shorter reports, various items of local natural history and environmental news, and news and reviews of recent books and papers relating to local natural history.

Publication of *Tribulus* is supported in large part by the ENHG's corporate members, whom it is a pleasure to acknowledge here:

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Letters to the Editor

Any news or views you would like published in our monthly newsletter? Feel like tickling things up?



Please send your letter to any of the committee members listed, by fax or e-mail, or direct to the editor.



Field Clips...

Stop Press! News from Wadi Bih

Barbara Couldrey reports from Ras al Khaimah that the rules for travelling through Wadi Bih have changed. The driver and *all passengers* in the vehicle must carry and present some form of identification at the check-point.



Tombs of Ras al Jebal, RAK

On Thursday, August 5th, an article appeared in the *Gulf News* detailing the discovery of a Hafit-type tomb in excellent condition in the mountains of RAK, by none other than our RAK correspondent, Barbara Couldrey. Your editor was very excited, but Barbara assured her that she should calm down.

Barbara at the entrance of the tomb



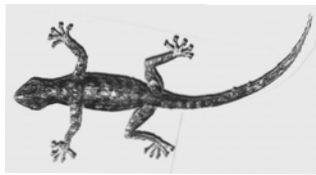
She wrote, "A short while ago, while undergoing some medical 'carpentry' in hospital, one of the local newspapers printed a story about Hafit tombs which included some rather wild quotes from me! Just to put the records straight, this photo was taken over two years ago. I'm sitting in front of a particularly well preserved Hafit tomb above Tafif, built of pretty stone and in a beautiful location, overlooking mountains and wadis far below.

Hafit tombs date from 3,200 BC to 2,600 BC and take their name from tombs/cairns found on Jebal Hafit near Al Ain. There are many

dotted about on hilltops in Oman but far fewer in the Rus al Jebal.

During my many excursions into the mountains, I sometimes stumble upon these tombs and give measurements and location details (GPS coordinates) to the archaeology department of the Ras Al Khaimah Museum to include in their data base for a future in depth study into this period of local history. These tombs/cairns are often just a pile of dark stones, occasionally found near wadi beds but generally seen on prominent ridges in the mountains. Someone without prior knowledge of these structures could very easily just walk past them!"

This one is the best-preserved that Barbara has found. Hafit-type tombs have been reported in Khatt, Wadi Bih, and Qoor Valley in Rak. Each tomb contained one or two small chambers used either for single or double burials, but most are in such poor condition that it is difficult to draw any definite conclusions from them. Currently, the tomb is being used as shelter by a herd of goats! *Thanks to Barbara Couldrey and the Gulf News for this information*



Part III of Drew on Geckos

The story continues...

The different species of gecko vary greatly in the structure of their feet. Species which live on vertical rock or trees usually have adhesive toe pads, while those that live on rocky ground or on sand have no need for such devices, and have more usual lizard toes. Amongst the climbing geckos, the size and shape of the pads is one of the best ways of distinguishing the various species. The six species of *Hemidactylus* geckos in the

region all have a series of parallel, enlarged scales in their toe pads, with each pad being divided in the centre. While all these geckos are climbers, perhaps the most extreme is the endemic Oman ghost gecko, *Hemidactylus lemurinus*. This species is so far known from only two sites in the Dhofar mountains, where it lives on pale, water-worn, marble boulders. Its name comes from its almost white colour, which matches the rock. Ghost geckos move over the surface of these boulders with fantastic agility, leaping across the gaps between them, and running with equal ease upside down on the overhanging faces. The boulders have few crevices, and the geckos flee around the boulders rather than attempting to find shelter. Ghost geckos have relatively long, slender legs, and feet with outsize toe pads that help them keep their grip on the smooth rock.

Similar adaptations are found in the fan-toed gecko, *Ptyodactylus hasselquistii*, except that the pads on each of its toes are arranged like a fan. This is one of the most widespread of the rock climbers, being found in North Africa and throughout the Arabian Peninsula. In Oman it may be found almost everywhere on cliffs and large boulders, except at high altitudes in the mountains. It is even at home in the forts and houses of deserted villages. Fan-footed geckos usually live in groups and it is not unusual to find several sharing the same crevice. They may be quite vocal, with males in particular calling to each other with a series of chirrups.

The beautiful twin-padded geckos of the genus *Asaccus* live on rocks and cliffs, mainly in the mountains. Of the seven species known, four are found in the Hajar mountains. *Asaccus gallagheri* is the most colourful, and was named after the indefatigable Michael Gallagher who collected and studied so much of Oman's, and the UAE's, flora and fauna. Rather like its discoverer, it is small, alert and highly active. Unusually for a gecko, the



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males and females can easily be distinguished by their differently coloured tails: the male's is a bright golden yellow while the female's has strong black and white banding. Three of the *Asaccus* species were only described to science in 1994. Perhaps the rarest is *Asaccus montanus*, which only lives above about 1800 m in Jebel Akhdar. The flat-snouted gecko, *Asaccus platyrhynchus*, is found in caves and gorges at lower altitudes in Jebel Akhdar, between 500 and 1500 metres. Like Gallagher's gecko, it too has differently coloured tails in males and females. However, it is a much larger species with long spindly legs and the flat snout gives it a rather comical 'duck-billed' appearance. *Asaccus caudivolvulus* is a large species which looks rather similar to the flat-snouted species, but has larger raised scales on its body and is named for its habit of coiling its long tail like a watch spring. It is

only known from the Musandam and the mountains of the eastern UAE. All these *Asaccus* geckos lack the left oviduct and lay only a single egg at a time. Like the fan footed gecko they glue their eggs onto the rock. The shell is soft and sticky when laid, but quickly hardens in contact with air.

Other *Hemidactylus* geckos occupy a range of habitats. *H. turcicus* is very common in Abu Dhabi, living on the date palms planted along the streets and gardens. It is a variable species, both in size, colour and the size of the tubercles. Animals living on pale desert rocks can be quite pale and relatively smooth. *H. yerburyii* is a large species from Yemen and Dhofar and can be very heavily tuberculated. *H. homoeolepis* is a tiny gecko that hops actively around the rocks at night in coastal eastern Oman. *H. persicus* is found in the mountains of Jebel Akhdar and the Sharqiyah. At

higher altitudes it is larger, and I suspect is actually a distinct and endemic species. *H. leschenaultii* is the Indian bark gecko, and has only been found in Arabia living in acacia woodlands along the Oman Batinah.

The other species of geckos have toes without adhesive pads, and if they climb, they must rely on their claws and balance, like other lizards.

Thanks to Drew Gardiner. The fourth and final part of the gecko story will appear in the September Gazelle.



Dubai Natural History Group Programme

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

Sep 19 Environmental Challenges in the UAE – Frederic Launay (Please note *third* Sunday)

Oct 3 The Beetle Species Carabeus: From Linnaeus to the Internet – Prof. Mike Gillett

Field Trips (Members only, please. Details inside.)

Sep 17 (Fri) Larry Woods' Dump Trip

Oct 8 Fossil hunting and tombs at Jebel Buhays (jointly with ENHG Abu Dhabi)