

GAZELLE

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مجموعة دبي للتاريخ الطبيعي

DUBAI NATURAL HISTORY GROUP

PO Box 9234, Dubai, United Arab Emirates

Members' News

Welcome back to all our members some of whom made a good start to the season with Bjorn Jordan's talk.

Members should note that the lectures for the next three months are *not* on our regular first Sunday of the month, and one is even on a Saturday. Please see p.8 for the schedule, and note the changes so that you do not miss any of our season's interesting speakers.

In December, we will hold our very popular Members' Night, when DNHG members have a chance to present their particular areas of interest. Two are already booked, but there is a spare slot and if you would like to fill it, please contact Angela Manthorpe at manthorpe2005@yahoo.co.uk Your presentation should be 20 minutes maximum, and we can provide all necessary equipment and help.

Our thanks to Major Ali and all at EMEG who sent an invitation to share *iftar* with them at the Ghan-toot reserve! Quite a few attended, and enjoyed it very much. Some members went out a little early in order to walk on the beach, and reported very large quantities of plastic waste deposited by the tide, including much that would be resistant to bio-degradation.



Members enjoy *iftar* on the beach

Virginia and Sim Hasker, members for several years, are relocating to Pakistan for two years. Sim, one of our erstwhile Treasurers, has donated to the DNHG a 3-hole punch (an essential piece of equipment for a Treasurer, apparently) and a set of maps of Oman which will join our library collection. Thanks to Sim for these and his contribution on the Committee.

And **Jenny Irwin**, one of our much-missed librarians, left Dubai in late August. She wrote, "I have thoroughly enjoyed our 24 years here, and the DNHG activities. I wish you all well for the future." Thank you, Jenny, for your excellent work in the library.

DNHG Membership

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.) Membership taken now will be good for the period through to August 2009.

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

This month's Contributors

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

Valerie Chalmers
Stefan Beck
Gary Feulner
Carol Goodwright
Angela Manthorpe



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



Hot, but so are the trips ...

Dubai & Northern Emirates Birdwatching Oct 10 (to be confirmed)

These popular trips with Dave Bradford usually start early and, with minimal effort and driving, manage to let you see a huge number of species. As details are not yet set, watch for an email.

Astronomy Night with Lamjed El-Kefi & the big telescope! Oct 17

Lamjed will have to use his ingenuity to find a spot away from light pollution, but closer to the time, expect to receive details and a map by email. Take your own binoculars, snacks, mat for lying flat etc. Not to be missed!

And many more trips, all with dates and details to be confirmed:

Sharjah Aquarium

The Sharjah Aquarium is new and promises to have an interesting array of marine life. This is a good trip for children.

Paper recycling factory

The Al Qoz factory where paper is made using pulp and rag was featured in an article in our Jul/Aug *Gazelle*, p.3, prompting requests for another one. Children welcome. Date to be announced.

Bastakiya walk with Peter Jackson

This is a ramble through the very old areas near the creek mouth, with architect and wind-tower authority Peter Jackson. Not to be missed but ... numbers limited! Watch this space.

Sharjah Museum / Weekend Family Workshop

Date & details to be finalised.

Trip details and dates will be advised at meetings, or by email, or if time permits, in Gazelle.

DNHG Field Trip Policies

Members are reminded that DNHG field trips are cooperative ventures among the participants, for their mutual benefit and enjoyment. DNHG field trip leaders are not normally professionals or experts, but fellow members who have agreed to share their time and their knowledge with other participants, on a volunteer basis. The relationship of trip leaders and participants is that of co-venturers, not professional and client. For these reasons field trip participation is limited to DNHG members and their bona fide non-resident guests.

Various dangers are inherent in travel in and around the UAE and in the exploration of the natural environment, whether by automobile, by boat, on foot or otherwise, and whether on-road or off-road, in the cities or countryside, in the mountains or deserts or at sea. By participating in DNHG field trips, members accept these risks, and they accept responsibility for their own safety and welfare. Field trip participants are normally required to sign a waiver form to this effect. Without these understandings, the DNHG would be unable to sponsor field trips or to recruit volunteers to lead them.

Field trips vary in both format and organization, depending on the nature of the trip, the number of participants, and the preferences of the field trip leader. If the number of participants is limited and sign-up is required, members should make every effort to honor their commitments or to give timely notice otherwise, as a courtesy both to the trip leader and to other members who might like to have the chance to participate.

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- Members are encouraged to propose and lead field trips, and if so, should contact the Field Trip Coordinators (p.7) with details.
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Letters to the Editor

Do you have some comment, suggestion or query on natural history that you would like our members to know about or answer? Just want to tickle things up a bit?



Please send your letter to any of the committee members listed, by fax or email, or direct to *Gazelle* editor, Anne Millen, email: pvana@emirates.net.ae

Our Next Speaker

Dr Frank Gordon Kirkwood has worked in the United Arab Emirates for over three years in the oil industry, where he has been seconded by BP to ADMA-OPCO as a senior advisor. Dr Kirkwood obtained his doctorate in chemical physics from the University of Kent at Canterbury in 1979, and has been working in the oil and gas industry for BP ever since, in the petroleum engineering and commercial fields. He is now also a certified scuba diving Instructor and he now spends most of his time at weekend teaching students to dive among the sharks, rays and turtles at Dibba Rock. For more than 16 years, he has been a keen scuba diver and underwater photographer, and is a member of the Emirates Diving Association.

His presentation on the 'Marine Life on the UAE and Oman' will take us on an underwater journey, covering some of the most interesting fishes, reptiles, mammals and invertebrates that are encountered by divers in this region and highlighting the benefits of this bio-diversity.



*Ghost pipefish
Photograph by Angela Manthorpe*



Email your field reports and news to pvana@emirates.net.ae (Arial 10 justified). Please send your photographs as separate jpg files, or deliver them to Anne Millen for scanning.

Biggest Beetle Larva

A footnote to the sand driving course conducted in early April was the mid-morning sighting of a very large grub (a beetle larva) in leaf-littered sand under large ghaf trees. It was mobile and moved in a caterpillar-like manner. Viewing it from a distance, its size (c.7cm) made me think at first that it must be one of the UAE's larger centipedes. Observed more closely, it was actively burrowing into the sun-dappled sand beneath the tree, though whether this was because of the increasing light or heat or (more likely?) because of our attention, we do not know.

Reference to a general insect guidebook indicates that the grub – long and straight, milky yellow in color, segmented and legless, but with a chitinous head and mouthparts – was most like larvae of longhorn beetles, Family Cerambycidae. This, together with its size, makes it likely that we were seeing the grub of the UAE's largest beetle, the plant-eating *Anthraco-centrus arabicus*, which (consistent with our observation) is considered to be associated with natural stands of ghaf trees. Males can reach a total length of up to 10cm although females may be only half that. Apart from size, the sexes are distinguishable by the larger mandibles (jaws) of the male. Prof. Mike Gillett wrote when he was in Al-Ain that he had heard many reports of these large beetles but had only seen two examples personally, both dead female specimens.

A. arabicus was formerly known as *Acanthophorus arabicus* (it is now considered to reside in a different genus) and under the earlier name it has previously been discussed in the pages of the *Gazelle*. See July/Aug, Oct and Nov

1999. Among those who have observed and collected it are two DNHG life members, Dr. Alan Dickson, a former Chairman, and Carolyn Lehmann, a former Librarian. Our third life member, Marijke Jongbloed, provided the photo of Alan Dickson's male specimen that graces p. 3 of the Oct 1999 *Gazelle*. Carolyn's specimen, a male that measures 9.75cm from tip of abdomen to tip of mandibles, was found dead in the sand near Minhad (now called Umm Nihad) air force base in Dubai.



Anthraco-centrus arabicus
Photograph from *Arthropod Fauna of the UAE*, Vol. 1, ed Tony van Harten

Longhorn beetles are among the many groups included in the recently published *Arthropod Fauna of the UAE*, Vol. 1, edited by Tony van Harten of the UAE Insect Project, which has (among other things) increased the number of longhorn species known locally from five to twelve. The maximum length for *A. arabicus* is given as 8.1cm. This probably reflects the convention of measuring from the posterior of the wing covers to the front of the head; by that method Carolyn Lehmann's specimen measures a respectable 8.0cm. The same source informs us that *A. arabicus* is widespread within the Eremic zone, from southern Iran westward across the Near East, Arabia and North Africa.

Unfortunately (and uncharacteristically) the several DNHG observers did *not* take a photo of the grub. Instead, under the circumstances, we made the difficult choice not to interrupt the progress of the sand driving exercises in order to make arrangements to catch and display it. *Report by Gary Feulner*

Fast to the Blast at the Radio Mast

In late June, a Dubai landmark was demolished – the tall radio mast near the end of Al Wasl Road, inland of the Jumeirah Beach Hotel, in an area once undistinguished but now known as Umm Al-Sheif. The tower, with its guy wires, occupied a plot about a half kilometre square that had been fenced and largely undisturbed for more than a quarter of a century.

The destruction of the mast and its surrounding fences presented an irresistible opportunity to investigate a "natural" local environment, and in particular to see what the Dubai coastline might look like in the absence of either traditional grazing animals or modern "development." For this reason I took the opportunity to visit a week after the blast.



The site of the old radio mast, Jumeirah

Animals: I arrived in mid-morning, by which time most animals were taking shelter from the summer heat. I spooked a few small and very wary lizards, either the short-nosed race runner, *Mesalina brevirostris* or its cousin, *M. adramitana*, the desert race runner. Otherwise I saw only a handful of small cupid butterflies cavorting on succulent *Zygopyllum* in the shade of a couple of ghaf trees, *Prosopis cineraria*, and a selection of urban birds, mostly passing through or sheltering in the mesquite trees, *Prosopis juliflora*, on the west side of the plot – palm dove, collared dove, red-vented bulbul, white-cheeked bulbul, purple sunbird, house sparrow, common mynah, house crow, and rose-ringed parakeet, plus a single, colorful but



typically raucous red-wattled lapwing (the "Did-he-do-it?" bird that seems to be found almost everywhere these days).

The tracks of desert hares were evident, but the only plants that were obviously nibbled were *Cornulaca monocantha* and *Moltkiopsis ciliata*, although *Zygophyllum* is known to be eaten by the hares.

Plants: Plant-wise, I was disappointed at first. I had (naively) expected that the lack of disturbance might result in a greater profusion of growth. But the climate is harsh, disturbance or no, and most shrubs appeared dry and dusty in the summer heat, some seemingly dead or nearly so. In most areas diversity was low, but more species were found where there was a thicker cover of sand over the hard, saline flats. In the end I recorded more than 20 native species. In the SE of the plot, there is a continuous cover of rolling sand rising to up to 1-1/2 metres or more above base level, a difference sufficient to accommodate a number of species not found elsewhere.



Sea lavender *Limoneum axillare*

The succulent *Zygophyllum qatarense* was the dominant species in all areas, both saline and sandy. In saline areas, the sea lavender *Limoneum axillare* was also common, with minor *Salsola imbricata*, the grass *Aeluropus lagopoides* (here as small clumps rather than its usual spreading mats) and, in the very lowest and most saline areas, *Halopeplis perfoliata*, distinguished by its bead-like purple leaves. Some shrubs of *H. perfoliata* were among the largest I have seen. A few *Tamarix* sp. were found on the saline flats, mostly in the NW corner.



The distinctive spike of *Lotus garcinii*

On the higher sand in the SE, the bristly *Heliotropium kotschyi* and smooth *Sphaerocoma aucheri* were co-dominant, the dried inflorescences of the latter collecting as wind-blown debris in hollows and in the lee of other plants. Also present in good numbers were *Moltkiopsis ciliata*, the rockrose *Helianthemum lippii* and knot-grass *Panicum turgidum*. The only other grassy plant in evidence in was a sedge, *Cyperus* sp. Absent, surprisingly, was the almost ubiquitous *Haloxylon salicornicum*, which perhaps requires still somewhat less saline ground.

Two surprises were species in flower in the intermediate sandy-saline terrain of the SW corner. One was the short but very erect *Lotus garcinii*, which was quite common in a small area. The other was the large shrub *Taverniera spartea*. There were dozens of specimens but most were completely dead and, as the plant is not one I see often, I was puzzled as to its identity. Patience was rewarded, however, and I eventually came upon two shrubs showing areas of new growth in the form of leaves, flowers and seeds.

At another season there might have been some annuals present, but, apart from the lotus the only evidence of annuals was dried, erect stalks of tiny *Oligomeris linifolia*.

Seashells: At various places the hard surface of the flat, saline areas yielded up evidence of the past environment of the area in the form of a suite of seashells characteristic of intertidal lagoon habitats in the present day UAE -- a reminder of the past comings and goings of the shoreline and the sea. The exception, of course, was that the large

mud creeper *Terebralia palustris* was present as shell debris but is notoriously absent from the Arabian Gulf today. Report by Gary Feulner

Valerie Chalmers continues her article, begun last month ...

Fossils Found on Ibri Anticline Trip

Part 2 - The Echinoids

As regards the Echinoids (Echinoderms), Dr Andrew Smith has identified several taxa, most of which are Late Cretaceous and one of which is from the Lower Eocene, and reference is made to his excellent work on echinoids - 'The Echinoid Directory' - on www.nhm.ac.uk

Sea urchins or echinoids (echinoderms) belong to the Class Echinoidea, one of the five classes of the Phylum Echinodermata. They have a skeleton which is composed of calcitic plates embedded in their skin and in almost all groups of echinoid the plates are firmly bound together to form a solid skeleton called the test. All echinoids have tube-feet which play a very important part in feeding and respiration and they cling on to hard substrata by means of their tube-feet. They move by means of spines which also offer the primary means of defence.

There are two main types of echinoid: the regular Echinoids (Regularia) and the irregular Echinoids (Irregularia)

The regular echinoids have a pentaradially symmetrical test (have 5-fingered symmetry) which is composed of ten double columns of plates consisting of five interambulacral zones and five ambulacral zones. The ambulacral zones are made up of plates that are pierced by single or double pores for tube-feet. The pore-pairs are situated along the outer margins of the ambulacral zone. There are two major openings on the test: one is the peristome which is circular and central on the lower or oral surface and surrounds the mouth. All ambulacral and interambulacral zones converge around the mouth. The other



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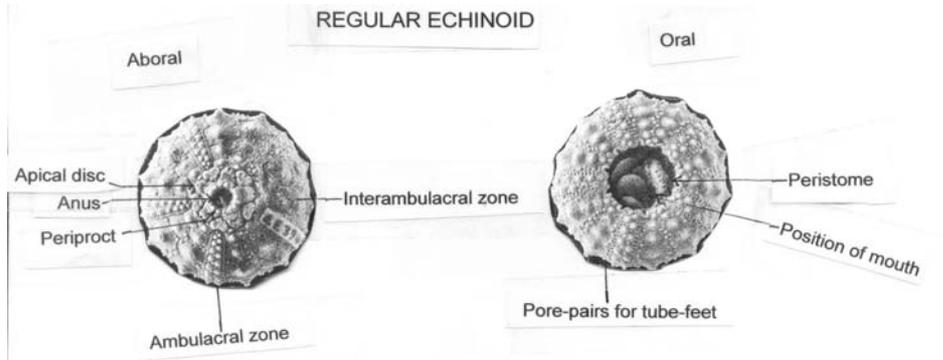
Seashells - Recorder needed!

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.

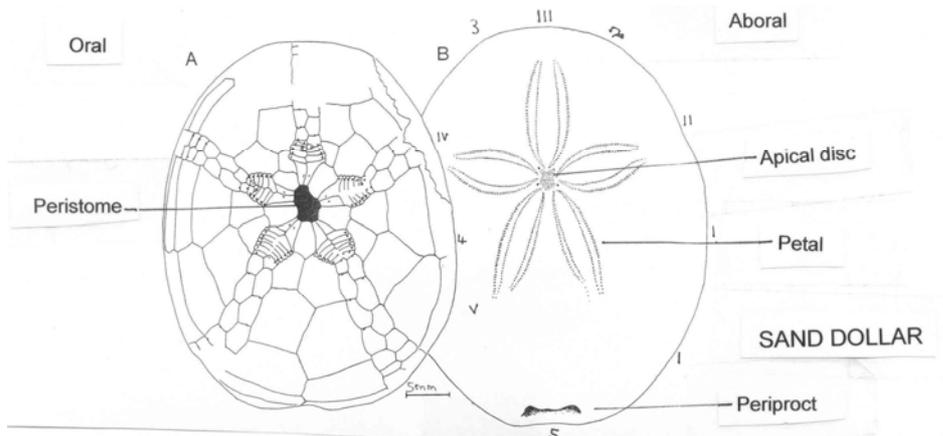


opening is the periproct which lies on the aboral or upper surface and which is a flexible plated membrane containing the anus. The anus is surrounded by an apical disc ring of ten plates – five genital and five ocular plates. All plates bear spines which attach and articulate at tubercles. The precise arrangement of ambulacral plates on the test is highly variable and extremely important. Here is a diagram of a regular echinoid.

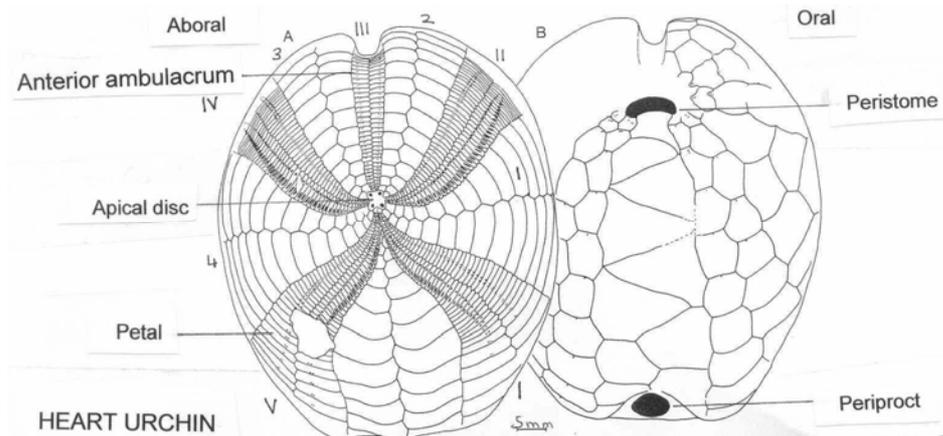


The irregular echinoids can be divided into two groups:

- a. Sand dollars and their relatives (cassiduloids and clypeasteroids)
- b. Heart urchins (spatangoids) and their relatives (holasteroids and disasteroids).



Both groups have tests with bilateral symmetry superimposed over a pentaradial plan. The tests are composed of ten double columns of plates – five interambulacral columns (labelled 1 to 5) and five ambulacral columns (labelled I to V). The ambulacral plates are pierced by single or double pores for tube-feet. (The adapical portions of ambulacra are variously developed into petals, specialized zones of enlarged pore-pairs that support respiratory tube-feet).





In sand dollars and their relatives, all five ambulacra are generally identical and are on the aboral (upper) surface. (The pore-pairs form a very distinctive petaloid pattern). The shape and relative development of the petals is fairly uniform throughout the group. In most groups, ambulacra are composed of single plates. However, in certain clypeasteroids, petals may contain alternately large and small plates. Whether ambulacral pores are single or double below the petals is also important. The arrangement of pores in this group is highly variable. One specimen found at Ibri, *Echinolampas* sp. (Irregularia: Cassiduloidea: Echinolampadidae) has asymmetric petals. This is the specimen from the Lower Eocene. Spines are always short and chubby and tubercles small, dense and often slightly sunken.

In heart urchins and their relatives, the shape and relative development of the petals is important taxonomically. In some taxa, all five ambulacra are identical. Spatangoids typically have sunken plates. Often the anterior ambulacrum is differentiated from others. Spines and tubercles are generally rather fine in heart urchins.

In sand dollars, the peristome which houses the mouth is situated on the lower surface, either centrally or towards the anterior border. The periproct which houses the anal opening is variable in position. The apical disc at the apex of the test (the point of origin of the ambulacral zones) consists of a small number of plates.

In heart urchins, the peristome is an oval to D-shaped opening on the lower surface and this is where the mouth is situated. The periproct is always positioned towards the posterior. Depending on the species, it may be viewed from above or in oral view. Again, the apical disc consists of a small number of plates.

The echinoids from the Ibri Anticline which have been identified by Dr Smith are all irregular echinoids and all except one belong to the Sand

dollars and their relatives. These are:



Gitolampas sp. (Cassiduloidea; 'Gitolampadids')



Stigmatopygus sp. (Cassiduloidea; Faujasidae; Stigmatopyginae)



Echinolampas sp. (plus 'normal coiled ammonite' – photograph by Stefan Beck)

Zuffardia sp. (Cassiduloid; Faujasidae; Faujasinae)

Pseudopygaulus sp. (Neognathostomata; Pleisolampadidae) (no photographs of these)

The specimen belonging to the heart urchins is:



Linthia sp. (Spatangoida: Palaeopneustina; Schizasteridae)

Thanks to Valerie Chalmers for report, photographs and diagrams. This completes her work on the Ibri Anticline fossils.

Book Review

Tribulus Vol. 17

Tribulus Vol. 17 is now out, with a new look, lots of photographs and a more reader-friendly appearance. In consideration of the difficulties of organizing the publication process, the editors have moved to a once-yearly calendar, but containing double the usual content. This was done somewhat reluctantly, but the result is a great success.

Vol. 17 is 108 pages and contains feature articles on: the vegetation of the coastal white sands; East Coast archaeology; an illustrated guide to local dragonflies (an 'inter-emirate' project undertaken jointly by Bob Reimer of Al-Ain, Dick Hornby of Abu Dhabi and Gary Feulner of Dubai); sharks and rays of the Musandam waters; a survey of osprey breeding; and a photographic essay on the uses of the date palm.

Also included are short notes on a variety of topics including: molluscs found in desert archaeological sites; first records of a couple of birds (Jouanin's petrel and ashy drongo) and a snake (Gray's racer); and reports of a butterfly (desert grizzled skipper) and several moths new to the region.

More generally, even after 17 years, it is not out of place to thank the publishers (the ENHG Abu Dhabi), the editors, and the ENHG's corporate sponsors for their continuing devotion to the encouragement and publication of original research into the natural history of the UAE and neighbouring Oman. Thanks to Gary Feulner for this review.



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Hot Weather Shellers

Carol Goodwright and Sylais Sanghvi hosted a dozen DNHG seashell enthusiasts in late June for an evening of show and tell, Q&A, help with identifications and general conversation. On offer were seashells ranging from the large and colorful to the delicate and more subtle-hued. The least conspicuous were two intertidal species, only 1-3 mm, that have been sent to Japan for positive identification. We were impressed with Carol's collection, particularly given that she had collected a substantial portion of it from the new beach at the Jumeirah Beach Residences.



Conus textilis (Arabian Gulf variety)

Fresh eyes were successful in putting names on some problematic specimens. Many seashells have consistent and distinctive colors, but many others do not, or are variable, so it is the advice of experts in identifying a shell to pretend that it has no color, but is simply white. This forces attention to shape and proportion and details of ridges, notches, teeth, etc.



Anne Millen, An Pas & Gary Feulner try to ignore the colours

It was sad, as always, to hear about restrictions on access to favorite beaches, or outright destruction of them, but it is still possible to find a number of places where one can collect and enjoy the beauty and diversity of seashells, and occasionally add to local knowledge as well. Thanks to Carol and Sylais for a very pleasant evening. *Report by Gary Feulner, photos Carol Goodwright*



Pinctada radiata

Found on JBR beach, this is the historic pearl shell of the Arabian Gulf.

Dubai Natural History Group Programme

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

Sunday 19 October Marine Life of the UAE and Oman - Gordon Kirkwood

Saturday 8 November Taxonomy and DNA Studies - Dr Suzanne Williams

Sunday 14 December Members' Night

Field Trips (Members only, please. Details inside, p.2)

10 Oct (TBC) Dubai & Northern Emirates Birdwatching

17 Oct Astronomy Night

Further field trips, details and any changes will be announced by e-mail circular.