



# GAZELLE

مجموعة دبي للتاريخ والطبيعي

## Aerial Re-fueling

Several alert members on our February field trip in the Masafi area were treated to the rare sight of two large moth species hovering in flight to feed on the nectar from flowering annuals.

The resulting photos also showcase the skill of some of our DNHG photographers.

The Hummingbird Hawkmoth is the more commonly seen of the two, but is always difficult to photograph. However, Binish Roobas captured it beautifully over a field of the flowering annual *Erucaria hispanica* on a wadi terrace in the Yas Branch of Wadi Mowrid.

The Striped Hawkmoth is much more rarely seen and has been said



The Hummingbird Hawkmoth (*Macroglossum stellatarum*) feeding on the nectar of (*Erucaria hispanica*) Photo Credit: Binish Roobas

## Inside this month

- Page 2:** Announcements
- Page 3:** Field Clips
- Page 4:** Field Trip Report
- Page 5:** Field Trip Report
- Page 6:** Field Trip Report
- Page 7:** Recorders and Announcements
- Page 8:** Programme, Committee, Membership

## Contributors

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

Ajmal Hasan, Tamsin Carlisle, Harold Bekker, Linda Rademan, Barbara van Meir, Binish Roobas, Valerie Chalmers and Gary Feulner

(in *Insects of Eastern Arabia*) to fly at night.

At first Linda Rademan mistook the moth for a small bird, feeding by day in the vegetation along Wadi Maydaq, but she stayed focused and managed to take a remarkable photograph to share with us. Again, the moth was feeding on *Erucaria hispanica*.



The Striped Hawkmoth (*Hyles livornica*), also feeding on (*Erucaria hispanica*) Photo Credit: Linda Rademan



Striped Hawkmoth caterpillar. These caterpillars can be very common in wet winters Photo Credit: Barbara van Meir

On the same weekend, Barbara van Meir photographed a caterpillar of the Striped Hawkmoth while camping near Falaj al-Mualla.

A month later, in a steep wadi on the East Coast, Binish and Gary Feulner encountered several individuals of both species feeding by day on the flowering lavender shrub *Lavandula subnuda*.

Report by Binish Roobas, Linda Rademan, Barbara van Meir and Gary Feulner

## Announcements

### Our Next Speaker

*Our next guest speaker for the DNHG May meeting will be **Dr John Burt** who will be speaking about the Arabian Gulf 'A Natural History of its Environment and Ecosystems'.*

Dr. Burt is assistant professor and head of the Marine Biology Laboratory at the New York University Abu Dhabi. He has extensive experience working on coral reefs throughout the Gulf and surrounding region and has published numerous scientific articles and book chapters on the marine ecology of the Gulf.

Dr. Burt's lab has a strong capacity building focus and he has offered multiple marine monitoring and research training workshops to the UAE and GCC national stakeholders in recent years. He has also hosted the largest ever regional conference 'Coral Reefs of the Gulf' in 2012 which was attended by representatives from 19 different countries, including every GCC nation. His research team examines the implications of environmental extremes and climate change on coral and coral reef fish communities.

The Gulf is a young sea with naturally hostile environmental conditions compared with most subtropical regions, yet it contains a number of interesting and unique coastal and sub-tidal marine ecosystems that are overlooked at first glance.

The goal of this lecture is to provide an overview of the unique environment of the Arabian Gulf and to highlight the major marine ecosystems associated with it from the intertidal areas down to the depths of the Gulf, including sabkhas (salt flats), beaches, rocky shores, soft-bottom habitats, seagrass beds and coral reefs.

This non-technical lecture will provide an overview of the marine ecosystems of the Gulf for attendees new to the region, as well as more detailed information for those with longer regional experience. The talk will end with a short segment describing some of the research being conducted by Dr. Burt's team at the NYU Abu Dhabi marine biology laboratory.

### End of Season Function

Well folks it's that time of year again to dust off those dancing shoes!

Our annual gathering before people disappear for the summer will once again be held in the:

**Utsav Restaurant,  
The India Club,  
off Oud Metha Road**

**Thursday 19<sup>th</sup> June**

**7.30 p.m. for 8.00 p.m.**

Further details will be published in next month's Gazelle.



### Annual Photographic Competition

The Annual Photographic Competition will be held once again at the End-of-Season Function. Members are invited to enter a maximum of **five** (returnable) prints on **UAE and Oman** natural history subjects from three different categories:

- (a) Life on Earth: Plants/Animals/Fossils;**
- (b) Earth & Environment: Landscapes/Geology;**
- (c) Man and his Influence: Archaeology/Architecture/Culture (People)/Environment.**

Photographs should be a minimum size of **5 inches x 7 inches (13cm x 18cm)** and should be mounted.

The competition will be judged by everyone present. There will be a prize for each category and for the photograph voted the best overall.

**N.B. The photographers must be present at the function.**

*Valerie Chalmers, Vice-Chairman*



*Evelyn Brey was last year's winner of the 'Life on Earth: Plants/Animals/Fossils' section with her photograph entitled 'Oryx'*



*Steve Raynor won the prize in the 'Earth and Environment: Landscapes/ Geology' section with his photograph entitled 'Samail'*



*The winner of the 'Man and his Influence: Archaeology/Architecture/Culture/Env.' section was Amelie Fella, with 'Dubai Skyline'*

## UAE Diving Beetles & Diving Bugs



Striped diving beetle  
(*Hydaticus (Prodatiscus) histrio*)



Brown diving beetle  
(*Cybister (Cybister) vulneratus*)



Polka-Dot diving beetle  
(*Hydaticus (Prodatiscus) pictus*)



Bronze-Rimmed diving beetle  
(*Cybister (Cybister) tripunctatis lateralis*)



Fawn diving beetle (*Eretes sticticus*)



Larva of a UAE diving beetle (Dytiscidae),  
probably the Polka-Dot, Striped or Fawn

Diving beetles of the family *Dytiscidae* are a frequent component of the freshwater fauna of UAE wadis. Eighteen species have been recognized in the UAE.

The five largest and most conspicuous local species are shown in the accompanying photos – the Striped, Brown, Polka-Dot, Bronze-Rimmed and Fawn diving beetles. All are active swimmers that generally call attention to themselves by their movement.

Two are "extra large" species (ca. 26-28mm). The Brown diving beetle seems to be the more commonly observed in the UAE. In the water it appears medium to dark brown with black margins. It is widespread in Africa but is also found in Southern Europe and Arabia. Most UAE sightings have been in hot weather.

The Bronze-Rimmed diving beetle is similar in gross appearance, but darker, and has a distinctive bronze-coloured margin. It is widespread in tropical and subtropical areas of Asia from Anatolia on to China and Japan. A subspecies without the bronze margin extends across North Africa and the Mediterranean.

By comparison, the Polka-Dot, Striped and Fawn are merely 'large' species (ca. 13-15 mm). Although the Fawn diving beetle has the widest global range (from the Middle East across North Africa to the Canary Islands, as well as the New World), it seems to be the least commonly observed in the UAE, perhaps because it is more easily overlooked. The Polka-Dot and Striped diving beetles are found across the arid regions of the Near East and Central Asia, including Pakistan and Northern India. There are also a number of medium and small sized UAE diving beetles (ca. 2-5 mm).

All of these diving beetles are active predators. Recent observations in Wadi Sfai (in December 2013) found the Polka-Dot, Striped and Fawn together in a single pool, ca. 3m x 2m x 2/3m deep.

There the Fawn diving beetle hunted close above mud and debris, against which it was camouflaged; unlike the other species, it was seldom seen swimming in open water.

The Polka-Dot and Striped diving beetles are generally active foragers but are sensitive to the presence of observers at close range. During the latest observations in Wadi Sfai, they were relatively skittish and spent much of their time out of sight in clumps of filamentous algae. All of these species, however, are air-breathing and must surface regularly. Adult diving beetles can disperse or migrate by flying.

The larvae of *Dytiscid* diving beetles are aquatic and are also active and formidable predators. Larvae undergo complete metamorphosis and do not resemble the adults. The larva shown here was found in a eutrophic pool in Wadi Sfai in December 2013, adjacent to a clear pool containing the Polka-Dot, Striped and Fawn diving beetles.

Certain of the UAE's diving bugs (Order *Hemiptera*) could easily be mistaken for a medium sized diving beetle. One of these (ca. 7-9 mm), the Small Saucer Bug *Heleocoris minusculus* (Family *Naucoridae*) is common in wadi pools. Saucer bugs normally forage on or within the substrate (gravel, algae or debris), but they must also surface regularly to take on air.

The full spectrum of UAE diving beetles and diving bugs is well illustrated in volume 4 of *Arthropod Fauna of the UAE*, edited by Antonius van Harten, where some of them were first recorded from the UAE.

Most of the diving beetles and diving bugs discussed here are also illustrated in *Insects of Eastern Arabia*, a 1987 paperback by D.H. Walker and A.R. Pittaway, illustrated by A.J. Walker, now out-of-print but available online (by agreement with the authors) at [www.enhg.org](http://www.enhg.org).

Report and photos by Gary Feulner  
and Tamsin Carlisle

© Ajmal Hasan, February 2014



Left: The rare dwarf palm (Nannorrhops ritchieana)

species was and how it almost seemed to be creeping its way looking for new flora to strangle, so to speak.

*Diplotaxis harra* was out in prolific numbers especially in the middle of small wadis running down the mountains lending a beautiful contrast of yellow atop the brown rocks. We found a single Scarlet pimpernel in flower and what could be *Richardia tingitana*?

© Ajmal Hasan, February 2014



(Richardia tingitana?)

Reptiles wise, lone individuals of *Pristurus rupestris*, *Omanasaura cyanura*, *Pseudotrapelus sinaitus*, and *Ptyodactylus hasselquistii* (surprise find inside an abandoned camel farm hut) were seen, but I could only image the handsome male Sinai agama and the shy fan-footed gecko.

Report and photos by Ajmal Hasan



© Ajmal Hasan, February 2014

A male Sinai agama (Pseudotrapelus sinaitus)

## Wadi Trip near Wadi El Hilou, Sharjah

On February 28, 2014, I undertook a 6-hour nature hike into a wadi vein leading quite deep into the mountains of Wadi El-Hilou, Sharjah, with a like-minded friend.

Post the recent rains, the area was blooming with flowering species and it was quite remarkable to still see all the annuals out in good numbers.

However, trekking up a small mountain we laid eyes upon an interesting sight – a small strip of dwarf palms at the base of a plain where many meandering wadi runnels seemed to merge – I knew these were the rare dwarf palm *Nannorrhops ritchieana* as it's a species I had been wanting to tick off my floral list of "to-be-imaged in the wild" species for a long time.

Growing in close association with *Euphorbia larica* and another fig-like species I have not been able to de-

termine yet, there were about 11-13 healthy palms growing in a grove seemingly between the rocks (the ground was extremely rocky).



© Ajmal Hasan, February 2014

Dodder (Cuscuta planiflora)

When I posted images on Facebook, Shahina Ghazanfar (*Royal Botanic Gardens, University of Kew*) showed special interest informing me that the dwarf palms were listed as 'Vulnerable' or 'Endangered' on the UAE Red List and requested for location details to add to her localities database. It was really heartening to see the beautiful little palms in their natural habitat.

Further ahead, we came across the native parasitic plant, *Cuscuta planiflora* seemingly strangling other co-habiting native floras. It was flowering too and back home in India I remember seeing *Cuscuta* species engulfing medium-sized trees so it was very interesting to note how small the native



© Ajmal Hasan, February 2014

The shy fan-footed gecko (Ptyodactylus hasselquistii)



## DNHG Trip to Dimaniyat Islands

The Dimaniyat Islands, a chain of nine limestone islets off the coast of Oman, were the target of a DNHG weekend trip in mid-March.

Declared a national park by the Sultanate in 1996 and now under consideration for UNESCO World Heritage status, the archipelago and its surrounding waters, located several kilometers off the mainland coast, provide a haven for the endangered Hawksbill Turtle (*Eretmochelys imbricata*) and Green Turtle (*Chelonia mydas*) as well as tens of thousands of seabirds which nest on the islands in summer. Shallow water off the upthrust islands' gently sloping southern coasts also provides substrate for some of Oman's finest coral reefs.

Landing on the islands is only allowed in winter, with the aim of minimizing disturbance to nesting seabirds and turtles, and even then requires a permit, usually obtained from the main local dive and boat-tour operator. Even so, the islands are not devoid of nesting avian life in winter, as Ospreys (*Pandion haliaetus*) make use of the islands' craggy northern cliffs to nest during the cooler months. Our group spotted a number of individual ospreys, including at least one obvious pair.

Among the other points of terrestrial interest was the relatively dense vegetation dominated by *Salicornia* (glasswort/sea asparagus) and



Osprey (*Pandion haliaetus*) on Police Island  
Photo Credit: Tamsin Carlisle

sedges, which provide ground cover for the summer-nesting birds, which include the Red-billed Tropicbird (*Phaethon aethereus*), Roseate Tern (*Sterna dougalli*), White-cheeked Tern (*Sterna repressa*), Bridled Tern (*Sterna anaethetus*), Sooty Tern (*Sterna fuscata*) and Common Noddy (*Anous stolidus*). Year-round, the plant cover also provides a habitat for a diverse arthropod fauna, including beetles, wasps, hover flies, grasshoppers, spiders and at least one dragonfly species - Orange Darter (*Trithemis kirbyi*).



Orange Darter (*Trithemis kirbyi*)  
Photo Credit: Tamsin Carlisle

Moving to the intertidal zone, rocky areas adjoining coral-sand beaches were especially rich in sessile marine invertebrates including Gulf Pearl Oyster (*Pinctada radiata*), chitons, barnacles and coral-like zoanthids. Grazing algal mats, we also found a well-camouflaged Sea Hare - a large marine slug with an internal shell. Another rocky intertidal highlight was a pair of Ruddy Turnstones (*Arenaria interpes*) living up to their name. On the sandy beach of Jun Island, we also found a moderately large group of Sooty Gulls (*Ichthyaetus hemprichii*).

Our sea crossing had been rough, so we were concerned that underwater visibility for snorkelling might have been impaired, but we need not have worried. The water in sheltered shallow areas was clear, and the reef formations magnifi-



Sea Hare  
Photo Credit: Tamsin Carlisle

cent. One area rich in Table Coral (*Acropora* sp.) did show some evidence of bleaching as well as damage wreaked by local fishing practices. Conversely, we spotted a number of "reef balls", concrete structures introduced to promote reef re-building, which showed that such problems had been noted and were being addressed.

Stars of the underwater world spotted by the snorkellers in our group included a large Hawksbill Turtle, showy Sohal Tang/Surgeonfish (*Acanthurus sohal*), Oman Clown Fish (*Amphiprion omanensis*), parrotfish, boxfish and cuttlefish. A two-meter-long Laced Moray (*Gymnothorax favagineus*) caught my attention by whacking me in the leg. When I turned to see what had attacked me, it quickly retreated to its lair, where it made amends for its previous unprovoked aggression by posing co-operatively for a series of photos.

The second day of our trip ...

(Continued on page 6)



Laced Moray (*Gymnothorax favagineus*)  
Photo Credit: Tamsin Carlisle

## Field Trip Report

### DNHG Trip to Dimaniyat Islands *cont.*

(Continued from page 5)

... dawned calm and clear, but we only had time to explore the close inshore Suwadi Island chain, where the snorkeling turned out to be disappointing. Nonetheless, several group members climbed to the peak of the main and closest island, which is linked to the mainland at



Hawksbill Turtle  
Photo Credit: Tamsin Carlisle

low tide and boasts a large fort. Due to its relative accessibility, this island has been considerably altered by human activity and has been extensively planted with exotic introduced trees. Nonetheless, its rocky outcrops and sandy coves still provide shelter for sea birds and swifts. A mixed group of gulls and large terns was in evidence on a sand spit extending from the small beach facing the mainland.

As a final note on avian fauna, our sea crossing to the Dimaniyat Archipelago was marked by numerous sightings of small pelagic birds rising from the water surface as our boat disturbed groups that had been resting. Although they flew too fast for certain identification, general size, colouration and behaviour indicate they were probably White-faced Storm Petrels (*Pelagodroma marina*), which



Cuttlefish  
Photo Credit: Harold Bekker

is a commonly sighted species in the Gulf of Oman.

Report and photos by  
Tamsin Carlisle

### Fringe of the Western Region Desert Drive

Led by Dick Hornby, participants set out at 9a.m. from the Ibis/Novotel Hotel, heading west on the E-11 to the Hameem Road towards Liwa as part of the Inter-Emirates weekend, Friday 21st of February 2014.

Our first stop was at the Emirates National Auto Museum. For those of us who had not been there before it was a worthwhile stop to see such a fascinating collection of vehicles. Other members of the group wandered around the area looking at plants and birds.

From there we drove a short distance south to the 'Dew Forest'. Here we stopped to examine the two to three metre Saxaul Trees or *Haloxylon persicum* Bunge.



Flowers of *Haloxylon persicum*

These 'small trees' water themselves with moisture condensed from dew and so are dew-reliant. Both the flowers and fruits of *Haloxylon* were seen. We also looked for any associated flora and fauna.

Plants seen included *Zygophyllum (Tetraena) qatarense* Hadidi, *Eremobium aegyptiacum* (Spreng.) Boiss., *Cyperus conglomeratus* Rottb. and *Heliotropium digynum* (Forssk.) Asch ex C. Chr. We also saw the trees *Zizphus spina-christi* (L.) Willd. and *Conocarpus lancifolius (Anogeissus latifolia)*. A leaping spider, a robber fly and the Striped Hawkmoth (*Hyles livornica*) were among the fauna spotted.

We then carried on south for about 60 km from the E-11 highway and were hoping to take a little-used tarmac road which would lead us to see more of the dew forest and to climb a mesa. Unfortunately we were prevented from accessing the road by the military (who were most probably on exercise).

Undeterred we continued our journey south to the Liwa Oasis and stopped at Al Jabbanah Fort near



Al Jabbanah Fort, Liwa Oasis

Jarah for a late lunch and to also view the fort. 'Al Jabbanah Fort is one of eight historic forts in the Liwa Oasis which was built in the early 19<sup>th</sup> century by the Bani Yas tribes to protect their separate authorities and maintain order in the community. 'They were mostly refurbished during the 1990s.' (Reference to Explorer Al Gharbia Visitors' Guide.) This fort was also one of four forts built beside water sources and is now surrounded by palm plantations.

After lunch we headed back to Abu Dhabi and some of the group headed off to view the flamingoes on ICAD VI in the Musaffah Channel as originally planned.

Report and photos by  
Valerie Chalmers

# Announcements

## DNHG Recorders

**Reptiles - Dr Reza Khan**  
 res: 344 8283  
 off 344 0462

**Astronomy - Lamjed El-Kefi**  
 res: 06-5310467  
 off: 06-5583 003  
 email: lankefi@emirates.net.ae

**Marine Life - Lamjed El-Kefi**

**Geology - Gary Feulner**  
 res: 306 5570

**Insects – Gary Feulner**

**Fossils - Valerie Chalmers**  
 res: 394 8871  
 email: valeriechalmers@gmail.com

**Plants – Valerie Chalmers**

**Archaeology—MaryAnne Pardoe**  
 mobile: 050 724 2984  
 email: maryannepardoe@yahoo.co.uk

**Seashells, Birds and Mammals - Recorders 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.

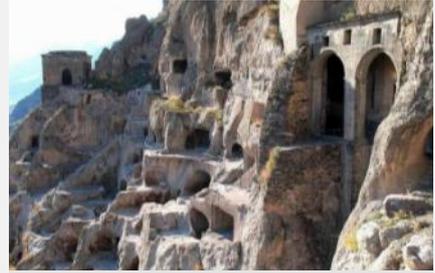
### Are You a Techie with Time?

The website sub-committee would like to find volunteers who can help with maintenance of the on-line newsletter, and to upload the wealth of information and photographs from past *Gazelles*.

Full training will be given. Contact any Committee person - we will be very pleased to hear from you!

## Georgia Trip

Boasting 330 different types of birds, 160 fish, 48 reptiles, 11 amphibians and over 500 species of spider, as well as many large land carnivores and diverse landscapes, Georgia is a great place for natural history lovers.



*Cave Monastery*

So if you are interested in joining us as we explore the cave monasteries, Caucasus, Old Tbilisi and let's not forget the wine making, then please contact our trip Coordinator:

**Christine Verreydt**

Ph: 0508974625  
 Email: [christineverr@hotmail.com](mailto:christineverr@hotmail.com)



*Old Tbilisi*

The trip is scheduled from:  
 May 23 to 29

## We still want your Snails

A reminder, especially for new members: Your unwanted garden snails and slugs are of interest for scientific study and an accounting of the terrestrial molluscs of the UAE.

All specimens will be gratefully accepted by Chairman Gary Feulner, and contributors will be kept informed of progress and pedigrees. Suburban gardens are home to several native Arabian snails, but also a number of introduced species. There have been a few surprises over the years and we suspect there are more out there.

Dead shells are preferred; we'll follow up if you've got something unusual. **It's easy. Just bag 'em and tag 'em!** Please remember to record the location and the habitat, as well as your name.

## Old Tribulus Volumes Wanted

The ENHG journal, *Tribulus*, is now in its twenty-third year of publication. Since it began, it has become increasingly important as a source of published data about the natural history and archaeology of the UAE. Much of the material published in *Tribulus* is available nowhere else.

As the journal continues to expand its reputation overseas, the Editorial Board have received an increasing number of requests from overseas academic and other scientific institutions for sets of *Tribulus*. Unfortunately, it is not possible to meet all of these requests, since some of the older issues are out of stock and reprinting would make no economic sense.

If any DNHG members are leaving the UAE and do not want to take their copies of *Tribulus* with them, then the Editorial Board would be delighted to have them back! Anyone wishing to hand back copies should contact any member of the DNHG Committee, who will arrange to get the copies to the Editorial Board. Many thanks, in advance.

## Dubai Natural History Group Programme

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

May 04: Dr. John Burt: The Arabian Gulf: A Natural History of its Environment and Ecosystems

June 01: Peter Jackson: Re-stitching and Intervention in Sharjah's Souqs

### Field Trips (Members Only)

May 23 to 24: Two-day/one-night dhow trip to the Musandam

May 23 to 29: Trip to Georgia

*Further field trips, details or changes to trips will be announced/confirmed by email circular*

## DNHG COMMITTEE 2014

When possible, please contact committee members outside office hours

	name	tel	email
Chairman	<b>Gary Feulner</b>	04 306 5570	grfeulner@gmail.com
Vice Chairman	<b>Valerie Chalmers</b>	050 455 8498	valeriechalmers@gmail.com
Treasurer	<b>Rakesh Rungta</b>	050 558 2435	rakesh99@emirates.net.ae
Membership Secretary	<b>Anindita Radhakrishna</b>	050 656 9165	anin@emirates.net.ae
Speaker Co-ordinator	<b>Martina Fella</b>	050 358 6485	martina_fella@hotmail.com
Speaker Co-ordinator	<b>Michelle Sinclair</b>	050 458 6079	sinclairm2004@yahoo.com
Fieldtrip Co-ordinator	<b>Pradeep Radhakrishna</b>	050 450 8496	wgarnet@emirates.net.ae
Fieldtrip Co-ordinator	<b>Jenny Hill</b>	050 886 1508	jennyhill76@hotmail.com
Fieldtrip Co-ordinator	<b>Sonja Lavrenčič</b>	050 256 1496	lavson@gmail.com
Newsletter Editor	<b>Peter Olliff</b>	055 394 2308	peolliff@gmail.com
Librarian / Book Sales	<b>Johanna Raynor</b>	050 604 2575	jayoman@gmail.com
Postmaster	<b>Sandi Ellis</b>	050 644 2682	sandiellis@gmail.com
Chief Engineer	<b>Ajmal Hasan</b>	06 5043523	ajmal_hasan@hotmail.com
Website Coordinator	<b>Sandhya Prakash</b>	050 551 2481	sandy_pi@yahoo.com

Postal Address: DNHG, PO Box 9234, Dubai, UAE

## Contributions

Do you have a field report, unusual finding, interesting news article, book review, amazing photograph, or community news to share?

If so, email your contributions to: [gazelleeditor@gmail.com](mailto:gazelleeditor@gmail.com)

*(Arial 10 justified).*

## DNHG Membership

Membership remains one of Dubai's best bargains at Dh. 100 for couples and Dh. 50 for singles. Membership is valid from Sep 2013 to Sep 2014. You can join or renew at meetings or by sending us a cheque made out to HSBC account no. 030100242001. (Please note we cannot cash cheques made out to the DNHG.)

Payment can also be made by cash deposit at a bank or ATM, using our IBAN number AE900200000030100242001. However, this process does not identify you as the payer. If you wish to pay by cash, please also scan and e-mail a copy of your payment confirmation to the Membership Secretary, so we know whose money we have received.

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*, our post office box, additions to our library, incidental expenses of speakers and occasional special projects.