



GAZELLE

مجموعة دبي للتاريخ والطبيعي

Terror in the Wadis!

Last weekend while exploring Wadi Madha, located in a pocket of Oman on the East Coast, I encountered a large black wasp (*Prionyx crudelis*) living up to its common name of 'Locust Terror'.

Walking along the bottom of the mountain slope my attention was brought to two bright yellow and red oriental wasps (*Vespa orientalis*) which were excitedly buzzing up and down near a small bush.

On further investigation I discovered they were jumping on and off a large (approx. 14cm) dying grasshopper (*Anacridium melanorhodon*), which was feebly trying to kick them away with its hind leg. Presumably the wasps' venom had already started to take effect and the grasshopper was succumbing to a state of paralysis.

Shortly afterwards the pictured 'Locust Terror' flew down and went straight for the locust's head and dragged it deep under the bush.



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Contributors

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

Sonja Lavrenčić, Juliette Winser,
Raffaele Lo Moro,
Martina Fella, Peter Olliff
and Gary Feulner

Using a stick I pushed back the bush to see what was happening and was met by the *Prionyx crudelis* so quickly I scampered on, not wanting to be its next victim!

According to *Insects of Eastern Arabia* the *Prionyx crudelis* is a ferocious, solitary wasp from the family Sphecidae and is capable of flying with heavy grasshoppers to its nest. But in Africa it has been known to travel in packs and follow swarms of locusts, picking off the weaker individuals.

The oriental wasp on the other hand is a social wasp and has been known to live in colonies of up to several thousand. Each colony has a queen, females for working and males for mating.

Social and solitary wasps can be distinguished by the way they fold their wings when not in flight. Social wasps keep their wings up at an angle, while solitary wasps keep their wings flat on the body.

Report and photo by Peter Olliff

Announcements

New Book: *Geological Evolution of the United Arab Emirates*

The UAE Ministry of Energy has recently published a new book on the geological history of the UAE, called *Geological Evolution of the United Arab Emirates*.

This book represents a summary of a decade long geological and geophysical study of the UAE by the British Geological Survey. It is aimed at a wide audience from geology undergraduates and academia in general to professional geologists and all those interested in the natural world. With more than 100 full-color illustrations, the book covers the dynamic geological evolution of the country in over 800 million years of Earth history. See the Ministry's website for more details.

The book, priced at 500 AED, can be ordered through the Ministry of Energy's website www.moenr.gov.ae or by telephone +971 (0)2 619 0121, Mr. Khalid Ali Al-Hosani.

Calling for *Field Trip Coordinators and Field Trip Leaders*

If you would like to join the 'Field Trip Coordination Team' or are interested in leading your very own field trip then we would like to hear from you!

Field trip leaders do not need to be professional experts, just be generally interested and enthusiastic. We have a number of field trips to choose from or if you have somewhere specific in mind, our field trip coordinators are here to help.

Field Trip Coordinators:

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Next Month's Speakers

DNHG are delighted to welcome the following members' who have agreed to give a talk at our annual 'Members' Night'

Steve Raynor — '*Discovering Iceland*'

Longtime DNHG members Johanna and Steve Raynor visited Iceland in the summer of 2014, for the 24 hours of sunlight. The presentation shows images covering the geology, scenery and wildlife and offers a few photography and travel tips.

Jean-Paul Berger — '*Geology of Djibouti*'

Jean-Paul Berger is a professor of Life and Earth Sciences and studied at the University Pierre et Marie Curie (UPCM) in Paris. He has taught in Paris, Morocco, London and Sarrebrücken (Germany) and came to Dubai in 2002, where he currently teaches biology and geology at Lycée Français International Georges Pompidou (LFIGP) in Dubai. He also leads training geology field trips for teachers in the UAE and Oman.

For 6 years he worked for the ministry of education in the Djibouti Republic and, through a co-project between the French and Djibouti education authorities, is the author of '*Géologie de Djibouti*' – A website designed for French speaking students about the opening of a very new ocean in Djibouti.

<http://www.jpb-imagine.com/djibgeol/>

Binish Roobas — '*An Introduction to some distinctive UAE spiders*'

Binish Roobas has a bachelor's degree in Zoology from Kerala University and has worked in Kerala as a naturalist guide. In the UAE, he has been responsible for the recognition and study of several rare species, including Walton's mudskipper and Bosk's fringe-toed lizard.

He has a special interest in butterflies, dragonflies and spiders. Spiders are one of the least studied groups in the UAE. Binish's talk will introduce us to some of the more distinctive spiders that can be found here.

Inter-Emirates Weekend 19-21 February 2015

The 2015 Inter-Emirates Weekend will be hosted by:

The Dubai Natural History Group

and will be based in:

Ras Al Khaimah, at the Golden Tulip Khatt Springs Hotel,

From the 19th to 21st February.

We shall have a programme of trips that take advantage of the many different opportunities RAK offers - mountains, khors, desert and plains, history and archaeology, etc. Details to follow.

So save the date!



Sand Dollars in the UAE

Sand dollars are not a common feature of the UAE coast anymore – if they ever were. Most of my specimens have been found along Omani shores on the Indian side of the peninsula.

But a few weeks ago, when combing a sandy patch close to the fishing harbour in Kalba, I got lucky! In total I must have found more than 20 sand dollars in different states of 'bleaching'; from freshly beached ones, with most of their spines still intact, to completely bleached out white endoskeletons. All of them



The underside of *Clypeaster reticulatus*, showing its star shaped jaw apparatus called the 'Aristotle's Lantern'

were at the highest upper tide line, dry and dead for at least a day and not just dug under the sand at the intertidal level waiting for the return of high tide.

The quantity of sand dollars on that short stretch of sandy beach could be explained by their proximity to the fishing port, as they were probably dragged to the shore by fishing nets scraping the sea bottom.

What was even more surprising was the size of some of them. The largest two approximately measured 10.5-11.5cm. Following the size and the slightly oblong shape I would identify them as *Clypeaster reticulatus*, which is commonly found in SE Arabia and the Arabian Gulf.

The size is somehow surprising. Until now I have only found sand dollars measuring 4-6cm (most of which are of another species *Echinodiscus tenuissimus*, which has a characteristic 'fish tail') and, if my amateur mini-research can be trusted, the average size of sand dollars in general spans from 7-8

cm. At almost 12cm these specimens would qualify as giant, especially considering that the sand dollar quoted in the Guinness World Records measures 14.8-16cm.

Sand dollars or 'sea cookies' get their popular name from their round flat shape and five-star pattern on top, similar to a large coin or a cookie. They are in fact a type of flat, burrowing sea urchin belonging to the order of Clypeasteroidea and are related to sea urchins, starfish and sea cucumbers.

Instead of traditionally long 'sea urchin type' spines, sand dollars have many tiny spines covered in tiny hairs called 'cilia' which give live sand dollars a fuzzy, almost velvety feel. The coordinated movements of these spines allow the sand dollar to move across the sea floor, burrow under the sand or move food towards their mouths located in the centre of their undersides.

The mouth has 5 teeth forming a star shaped jaw apparatus called the 'Aristotle's Lantern'. It can take sand dollars up to 15 minutes to 'chew or grind' their food and it can take up to another 2 days to digest it. They live in large groups; often groups of up to 600 sand dollars can be found in less than a square metre, and range from intertidal areas to great depths of up to 125 metres. They usually live for 6 to 10 years.

Report and photos
by Sonja Lavrenčič

Collecting Sand Dollars

If you plan on doing any sand dollar hunting, please make sure that the animal is dead before you bag it. When the sand dollar is a bleached white skeleton, there's no doubt about it, but if the animal is still covered in fuzz please make sure that the spines and cilia are not moving.

Once dry, sand dollar skeletons are extremely fragile and break easily, even with simple handling, so make sure you keep them safe.

Field Trips



DNHG Field Trip: Overnight Dhow in the Musandam

Another fantastic overnight dhow trip took place on the weekend starting October 17, 2014. Early Friday morning we met at Oman's Dibba port on the East Coast and headed up the coastal region of the Musandam peninsula on a traditional dhow.

After several hours of breathtaking scenery, where the mountains fall sharply into the sea, the captain dropped the anchor and we immersed ourselves in the water to swim and snorkel. There was quite a variety of marine life to be seen, which included an unusually large moray eel, clownfish defending their anemones, parrotfish, batfish, porcupinefish, pufferfish and some were lucky enough to spot a lionfish, to name but a few.

In the afternoon the captain decided to take us further into the Musandam peninsula and, instead of the usual overnight in Khawr Al Hablayn, we spent the night moored next to two picturesque rocks in

Sheesa Bay, where we had a barbecue dinner and open fire on a small pebbled beach nestled between the rocks.

That night we slept under the stars on the open deck of the dhow, which was a unique experience. The sky was cloudless and perfect for star gazing. Some were even lucky enough to spot a few shooting stars.

Early the following morning we headed off around the island by power boat passing a few Omani fishermen bringing in their catch and visited a couple of remote villages deep in the Musandam fjord.

We spotted a large number of Ospreys (*Pandion haliaetus*), pictured above, including several juveniles, who had made their nests perched on the highest peaks of the mountainous rugged island we were cruising around. Their chosen nesting locations enabled

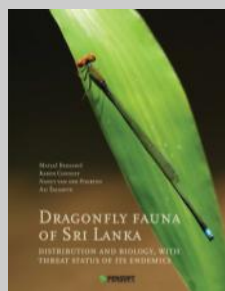
them to have a perfect vantage point of the surrounding area and they appeared well protected from any danger and close to an abundant food source.



Red Lionfish (*Pterois volitans*)

By late afternoon, after enjoying more snorkeling, kayaking and the opportunity to have a banana boat ride, we were back in the small Omani fishing port of Dibba, ready to disembark after an extremely enjoyable relaxing weekend.

Report by Juliette Winser



Dragonfly Fauna of Sri Lanka

Dragonfly Fauna of Sri Lanka: distribution and biology, with threat status of its endemics has

recently been published by Pensoft Publishers Ltd.

It is the product of almost 20 years' work by authors Matjaz Bedjanic, Karen Conniff, Nancy van der Poorten and Ali Salamun. It is an Open Access publication and can

be freely downloaded as a .pdf file (26 MB). Paperback copies are available for order as well.

124 dragonfly and damselfly species are so far known from the island, of which almost half are endemic, including most gomphid dragonflies and most of the several damselfly families. Such a high level of endemism makes Sri Lankan dragonflies an exceptionally interesting group for studies in biodiversity, zoogeography, phylogeny and ecology.

The book is 321 pages and features detailed texts as well as hundreds of colour photographs, maps and charts summarizing distribution, taxonomy, biology and threat status.

To download the book, please visit the Pensoft webpage at the following link:

<http://www.pensoft.net/book/12977/dragonfly-fauna-of-sri-lanka-distribution-and-biology-with-threat-status-of-its-endemics>

Khor Hulaylah

During an outing to the northern parts of the Emirates last month, I stopped by one of the four brackish water pools where the plain of Dhayah meets the coast in an area called Khor Hulaylah.

Khor Hulaylah, just north of the town of Rams, is the largest coastal wetland in the Emirate of Ras al-Khaimah. The area is protected from the Arabian Gulf by a prominent sand bar and comprises intertidal mudflats, salt marshes and a winding creek with areas of naturally occurring mangroves.

The area is generally considered unique in the UAE as a number of freshwater springs emerge into the khor, making it home to a mix of both brackish and salt water species. Over the years various uncommon plants and animals have been found in the area, including Mudskippers, air-breathing Gastropods, the Large Mangrove Crab and the Basket Web Spider. It also receives rainwater runoff and alluvium due to its close proximity to the Ru'us al Jibal mountain range.

The pool itself was surrounded by the Common Reed (*Phragmites australis*) and backed onto tall, dense mangroves (*Avicennia marina*), UAE's only native mangrove, which is named after the Muslim philosopher/ scientist Ibn Sina (Avicenna). On the other side of the reeds and away from the pool I noticed the small 'salt bushes' *Cressa cretica*, *Salsola* cf. *imbricata* and *Alhaji graecorum* (formerly *A. maurorum*), whose short spiny twigs, to me, resemble chubby green witches fingers each tipped with a sharp woody nail.



Bee Wolf (*Philanthus triangulum*)



Brackish water pool in Khor Hulaylah backed by the Ru'us al Jibal mountain range

It was a bright clear morning and large Globe Skimmers (*Pantala flavescens*) buzzed overhead along with Crimson Darters (*Crocothemis erythraea*). A pair of Reed Warblers (*Acrocephalus* sp.) sang loudly as they flitted between the reeds and nearby perched a small digger wasp, which after referring to *Insects of Eastern Arabia*, could be identified as a Bee Wolf (*Philanthus triangulum*).

A small section of the pool's muddy banks consisted of tightly compacted crab holes, from which a red/ purplish crab (*Metopograpsus messor*) emerged briefly, only to be chased back into its hole by a neighbouring white and purplish-blotched, sturdy crab (probably *Eurycarcinus orientalis*).

The pool couldn't have been more than 10in (25cm) deep when I first arrived but in over an hour it had gradually doubled in depth with the incoming tide. Water appeared to bubble up periodically from under the mangroves rather than flow in a continuous stream, causing the mud to dislodge and cloud in that particular area of the pool.

The water in the rest of the pool remained crystal clear and was full of juvenile fish; Crescent Bass (*Terapon jarbua*), Silver Biddy (*Gerres oyena*). In the centre circled a school of young, what I thought to be a kind of Mullet (*Mugilidae*) which are well known to visit intertidal zones at high

tides, but from a previous survey of the area could have been Milkfish (*Chanos chanos*), which are a toothless fish that eat algae and invertebrates.

The most common residents I observed were the Arabian Killifish (*Aphanius dispar*), which is not sur-



Observation tank with killifish
(Editor's Note: No fish were harmed in the writing of this report)

prising as quantitative studies done in the 1990s have showed these were overwhelmingly the most common fish found in UAE khors. There were 4 large shoals of approximately 50 fish constantly swimming just under the surface and occasionally diving down to pick at the 'crumbly looking' algae that had settled and covered the muddy floor. The larger fish lead each school, with the smaller fish trailing behind.

Previously I had only seen killifish in freshwater pools in Hatta and the main lake of Safa park. These had been easy to identify by the odd flash of the male's bright yellow anal fin, but these particular killifish ap-

(Continued on page 6)

Field Clips



Khor Hulaylah cont.

(Continued from page 5)

peared rather drab in comparison. Also the male's dorsal and anal fins appeared shorter and neater than the freshwater counterparts I had previously observed. Perhaps the colouration only intensifies during breeding or the freshwater inhabitants, who are sometimes artificially introduced into pools for mosquito control, are from a specific breeding stock?

In a neighbouring pool, closer to the main road and away from the mangroves, were a number of Black-winged Stilts (*Himantopus himantopus*), Moorhens (*Gallinula chloropus*), Common Sandpipers (*Actitis hypoleucos*) and a pair of, what were later identified as, Northern Pintails (*Anas acuta*) in their winter plumage.

In the past villagers from Rams and Dhayah used to collect drinking water from the area, referring to it as 'Ain Dhayah' (Ain meaning 'spring' in Arabic). Mud was also collected from the khor as it was believed to have healing properties for various skin problems.

According to UAE interact, the large sand bank that protects the khor from the Arabian Gulf, known as Jazirat al-Hulaylah (meaning Hulaylah island or peninsula), has been a place of intermittent settlement from the time of the Sasanians until the 18th century, with evidence in the form of broken pottery and the past existence of palm-frond houses.

If you would like to read more about Khor Hulaylah, a 4 page report, including a location map of the 4 brackish water pools, can be found in the back of *Tribulus* vol 19.

<http://www.enhg.org/Portals/1/trib/V19/TribulusV19.pdf>

Special thanks to Tamsin Carlisile and Tommy Pedersen (from www.uaebirding.com) for their assistance with bird IDs. Also a special thank you to Gary Feulner for assisting with other ID's and the overall article.

Report by Peter Olliff

Top left: Black-Winged Stilts (*H. himantopus*)
Middle left: Camel Thorn (*Alhaji graecorum*)
Bottom left: Northern Pintails (*Anas acuta*)

Arabian Killifish

The Arabian Killifish (*Aphanius dispar*) is one of three native fish species found in UAE wadis. It is also abundant in coastal lagoons and tide pools. In the summer some of these pools can become bathwater hot and an enterprising study in 1982, conducted in the room of a visiting scientist, showed that the Arabian killifish can tolerate water temperatures as high as 46°C.

Killifish are euryhaline, i.e., they can tolerate a wide range of salinities, but their primary environment is coastal lagoons, so they are regarded by experts as a 'secondary' freshwater fish.

How killifish arrived in freshwater wadis of the UAE and Oman remains an open question. It is believed they migrated along the



seacoast and up wadi streams during wetter times. Today, however, many populations have been artificially introduced for mosquito control.

The sex of killifish can be distinguished by their markings - the females having dark vertical bands across their body, while the males have blue-white spots and a few

vertical dark bands on the tail as seen in the above picture.

When in breeding colour, the lips and pectoral fins of the male become a vivid blue-white and males will display themselves to females by fluttering their tails like a mator's cape.

Report and photo by Peter Olliff

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Nepal Field Trip, April 3-11, 2015

Natural History Group members have once again been invited to experience the verdant scenery and village life of Nepal's hill country – traditional houses, mountain trails, terraced cultivation of rice, corn and millet, footbridges across rivers, water buffalo milk, temple ceremonies, traditional dancing, and more – including 4 days homestay and optional day hikes. Also birds, butterflies, etc. Sightseeing in unforgettable Kathmandu to start. Return via highlands of the upper Sunkosi River, with temple visit and a detour to the Chinese border. Total 9 days 8 nights.

Our visit will include a mix of touring by vehicle, day hikes, cultural interaction and natural history observation. In the hill country, at Makadum in Ramechhap District, our host will be Narayan Karki, a former DNHG member known for his energy and enthusiasm, who has a wealth of knowledge about village life and customs.

[NB: This will be a customized visit. The village area is part of the Indigenous Peoples Trail network, but that initiative has not yet been developed into standardized commercial offerings. Accommodation in the hill country will be at a private school. Previous visits by NHG in 2012 to 2014 have gotten very good reviews. The 2015 trip has been scheduled so that it is possible to participate in both the DNHG Andaman Islands trip and the Nepal Hill country trip.]

Limit 10 participants. Approx. basic cost: AED 2600 plus airfare (est'd AED 1500) and Nepal visa (AED 150).

For more details and itinerary, contact
Gary Feulner: grfeulner@gmail.com or 04-306-5570.

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.

Please contact any Committee person - we will be very pleased to hear from you!

Madinat Jumeirah Survey

If you would like to partake in the 'Madinat Jumeirah Survey of flora and fauna' please contact the appropriate team leader for details:

- (1) Animals (Gary Feulner): grfeulner@gmail.com
- (2) Plants (Val Chalmers): valeriechalmers@gmail.com
- (3) Marine (Lamjed El-Kefi): lamjedk@hotmail.com
- (4) Seashells (temporarily Gary Feulner): grfeulner@gmail.com

The Dubai Natural History Group on Facebook

You can now 'Like' and 'Follow' us on Facebook to receive regular updates on upcoming regional events, reminders for monthly lectures and field trips, as well as general information on the natural history of the UAE.

www.facebook.com/DNHG.UAE

Dubai Natural History Group Programme

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

- December 07: Members' night! Steve Raynor: Discovering Iceland, Jean-Paul Berger: Geology of Djibouti & Binish Roobas: An introduction to some distinctive UAE spiders.
- January 04: Dr. Himansu Sekhar Das: The monitoring and conservation of Abu Dhabi's Dugongs.

Field Trips (Members Only)

- November 28: Wadi walk with Liz Maley-Craig
 November 29: Bird watching at Al-Qudra Lakes and Dubai Pivot Field
 December 12: Old Dubai walk with Sonja Lavrenčič
 December 13: Stargazing with Jean Paul Berger (Geminids meteor shower)
 February 19-21: Inter-Emirates Weekend
 Mar 29 - Apr 3: Andaman Islands Trips
 April 3-11: Nepal Hill Country

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

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When possible, please contact committee members outside office hours

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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

(Arial 10 justified).

DNHG Membership

Membership remains one of Dubai's best bargains at 100 Dhs. for families and 50 Dhs. for individuals. Membership is valid from Sep 2014 to Sep 2015. 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.