



GAZELLE



مجموعة دبي للتاريخ والطبيعي

Inside this month:

Rainbow Valley	1
Announcements and Recorders	2
Archaeology Workshop Ras Al Khaimah 2022	3
Rainbow Valley continued	4
North Sumatra - Indonesia	5
North Sumatra - Indonesia continued	6
Rare Plants Not So Rare	7
DNHG Programme	8

Contributors —

Thanks to the following members for their contributions this month:

- Agnieszka Dolatowska*
- Anelisa Lambert*
- Aarabhi Vimal*
- Bruce Ellsworth*
- Gary Feulner*
- Mai Tran*

North Sumatra wildlife
... see page 5



Contribution by Bruce Ellsworth and photos by Bruce Ellsworth and Agnieszka Dolatowska

On Saturday, January 21, 2023, David Kingston led a geological field trip of DNHG members to Rainbow Valley, a picturesque wadi adjacent to the rugged Jabel Hajar mountain range. The valley is named for its rainbow colours of the innumerable layers of rocks. Because it has very little surface soil and has experienced significant erosion over time, its complex geological structure and various components are exposed and clearly visible.

DNHG members saw how the mineralogy changes in marine basins at varying water depths. Deep below the ocean surface lies the ophiolite rock of the oceanic crust. Marine organisms in the ocean die and their skeletal fragments sink and gradually accumulate in the sediment on the ocean floor. One type of marine organism, including coral and shellfish, secretes skeletal structures primarily made of calcite which is chemically known as calcium carbonate (CaCO₃). Another type of marine organism, including plankton, produced skeletal structures made of silica (SiO₂) through photosynthesis.

However, significant dissolution of calcium carbonate into the water begins at a depth of 3,000 meters due to the higher water pressure. This pressure inhibits the formation of limestone but does not inhibit the formation of harder chert rock and siliceous

(Continued on page 4)

Announcements and Recordors



Monthly Lecture

Monday 6 February 2023 at 7.45pm

Speaker:

Harry George

Topic:

“The cultural, physiological and psychological aspects of ultra-running through the Sahara Desert”

Images and stories from a recently completed race in the Sahara desert in Morocco will also be shared.



Harry George is currently working as the Environmental Services Manager at Fugro, a geo-data acquisition company. Harry's primary responsibilities include the thorough study of the marine environment surrounding the Arabian Peninsula to support private and governmental energy and infrastructure developers obtain regulatory approval to commence project development.

When Harry is not working, he enjoys cooking Italian cuisine and participating in outdoor adventures such as running ultra-marathons across deserts to burn off the aforementioned calorie intake.

DNHG Recordors

Reptiles - Dr. Reza Khan
050 6563601

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

Marine Life - Lamjed El-Kefi
(contact as above)

Geology - Gary Feulner
res: 04 306 5570
grfeulner@gmail.com

Insects - Gary Feulner
res: 04 306 5570
grfeulner@gmail.com

Fossils - Valerie Chalmers
res: 04 4572167
mobile: 050 8305018 email:
valeriechalmers@gmail.com

Plants - Valerie Chalmers
(contact as above)

Archaeology - Anelisa Lambert
056 6904508
anelisalambert@gmail.com

Seashells - Andrew Childs
050 4590112
andrew.childs@eim.ae

Bird Recorder - Panos Azmanis
050 7083555
azmanis.vet@gmail.com

From the Editor:

Winter has arrived and Mother Nature is beckoning.

Please share with us through the email below your observations, stories, photos and captions of wildlife and nature in the UAE or abroad.

Email: gazelleeditor@gmail.com

Deadline: 21 February 2023. We look forward to hearing from you.

Spotlight! - Archaeology Workshop RAK

Archaeology Workshop Ras Al-Khaimah 2022

Sixteen members of the DNHG enjoyed a full day archaeology workshop in Jazirat al-Hamra, Ras al-Khaimah on the 10th December 2022.

The workshop was hosted and designed by resident archaeologist Agnieszka Dolatowska, giving a rich overview of every aspect of archaeology, from its history and development over time to details of current practice in fieldwork, including pre- and post-excavation strategies.

The members enjoyed over four hours of guided excavation and recording in the trenches, learning about Munsell Colour Charts, stratigraphy, context sheets, soil types, coral stone, beach rock, trowels, dating methods and so much more.

The fieldwork was followed by an excellent lecture from a conservation specialist. As the day drew to a close, there was an opportunity for the DNHG members to have a go at the delicate task of piecing together broken pottery sherds to try and recreate whole objects - not as easy as it may sound! The day lasted from 8am to 6pm and was great fun whilst being highly informative.

Many thanks to Agnieszka and her team for a such a fantastic workshop.

Contribution and photos by Anelisa Lambert



(Continued from page 1)

mudstone. As the water depth approaches 5,000 meters, most or all of the calcium carbonate dissolves into the water due to the high pressure, meaning that limestone cannot form at all. Because silica does not dissolve even under the extreme pressure at depths of 5,000 meters or more, the rocks at these depths are primarily chert rock and siliceous mudstone.

In shallower areas of the ocean, the accumulated skeletal remains of marine organisms on the ocean floor form limestone that may contain some silica. Much of the limestone accumulated at the bottom of the ocean on the surface of the Arabian tectonic plate between 280 million to 95 million years ago in what is known as the Dibba Zone Cretaceous environment.

DNHG members learned that in areas where water run off brought flows of various types of rock debris into the ocean, conglomerate rock formations occur where large quantities of harder pebbles and boulders were embedded in softer limestone. Participants learned that when organic matter is trapped in these rock formations and is not exposed to oxygen, it can gradually transform into petroleum. Several Omani oil and gas fields are found in these Lower Cretaceous sediments, including the Lekhwair Oilfield of Northern Oman.

However, some 40 million years ago the ophiolite rock of the oceanic crust was thrust upwards on top of the Arabian continental crust in a tectonic plate subduction zone. This ophiolite obduction also brought to the surface the deep marine sediments that had been deposited at the bottom of the ocean 100 to 120 million years ago during the Lower Cretaceous period.

Due to millions of years of erosion, today the deep layers of limestone, conglomerate, chert and siliceous mudstone are all exposed on the surface in what is known as a "tectonic window." Field trip participants had a close-up view of these various layers of rock, including bits of the ophiolite that can only be seen in a few places on the surface of the earth.

DNHG members used steel nails to scratch the rock layers and measured the hardness of various types and layers of rock found at various stops during the Rainbow Valley hike. The nail scratch tests revealed some areas with greater amounts of soft limestone that likely accumulated at depths of 3,000 meters or less. The scratch tests also revealed areas with only hard rocks that likely sat at depths closer to 5,000 meters. They also revealed intermittent layers of softer and harder rock with varying concentrations of silica and calcium carbonate, which resulted in colourful rainbow patterns. DNHG members hiked up rocky inclines and climbed around large boulders, receiving a healthy workout in the process. But the friendly goats that met us for lunch were much better climbers than we were!

Photo by Agnieszka Dolatowska



Photo by Bruce Ellsworth (below & right)



Photo by Agnieszka Dolatowska



Photo by Bruce Ellsworth



DNHG trip to North Sumatra - Indonesia in July 2022

Contribution by Aarabhi Vimal

About the Author :

Aarabhi Vimal is a Year 10 student from The Cambridge High School in Abu Dhabi. She is passionate about wildlife and nature.

In July 2022 the Dubai Natural History group organised a trip to North Sumatra, Indonesia. I was part of the nine-member team led by Binish Roobas.

The highlights of the itinerary were Gunung Leuser National Park, Sibayak volcanic mountain climb, and the massive volcanic crater lake, Lake Toba.

Our first destination was Bukit Lawang, a small village on the banks of Bahorok river. The place is known to have the largest wildlife national park (Gunung Leuser National Park) for the Sumatran Orangutans. The most exciting activity here is the jungle trek to the dense rainforest and spotting the orangutans in their natural habitat. The Bukit Lawang rehabilitation centre for orangutans was founded in 1973 to preserve the decreasing number of orangutans. However, the centre was closed in 2002. We stayed at the Ecolodge Bukit Lawang Cottages.

The next day we set off for an early morning rainforest trek to the Gunung Leuser National Park. We were lucky to sight a Sumatran orangutan (*Pongo abelii*) within the first hour of the trek. The DNA of an orangutan matches 97% with that of a human DNA. Orangutan mothers are very protective of their young. Young orangutans stay with their mother until they are seven years old. Other mammal species sighted were the Silver Leaf Monkey (*Trachypitecus cristatus*), Thomas Leaf Monkey (*Presbytis thomasi*) which is endemic to North Sumatra, Lar Gibbon (*Hylobates lar*), and the Long Tail Macaque (*Macaca fascicularis*).

There were butterfly sightings throughout the trek including Common Grass Yellow, Tree Nymph, Lesser Harlequin, Tawny Rajah, Common Faun, Black Prince, Fulvous Pied Flat, Yellow Archduke, Colour Sergeant, Horsfield's baron, and B & W Helen. The spider species found were the Signature spider (*Argiope*), Wolf spider, Fishing spider, and Jumping spider. We also spotted a few Hill stingless bees (*Tetragonilla collina*) by their hives at the foot of the forest trees. The reptiles sighted during the trek were a Draco flying lizard, a King of Kangaroo lizard (looks very similar), and a Spiny Terrapin (*Heosemys spinosa*).

Throughout the trek, we saw several Giant Forest Ants (*Dinomyrmex gigas*). On our return we had a chance encounter with a solitary male Sumatran Orangutan whom we could photograph up close. We were thrilled to see a Wagler's Pit Viper (*Tropidolaemus Wagleri*) near the Ecolodge. Luckily it was asleep, coiled up on a branch so we could take close-up pictures easily. The Ecolodge was also home to loads of Common House lizards (*Hemidactylus frenatus*).

The following day we returned to the plantation area on the outskirts of the rainforest for bird watching. Some of the bird sightings were the Asian Glossy Starling, Javan Myna, Crested Serpent Eagle, Blue-crowned hanging parrot, Black-browed Barbet, Red-crowned Barbet, Raffle's Malkoha, Orange-bellied flowerpecker, Yellow-vented Bulbul, Sooty-headed Bulbul, Spotted Dove, Zebra Dove, Lesser Cuckooshrike, Sunda Woodpecker, and the Blue-throated Bee-eater.

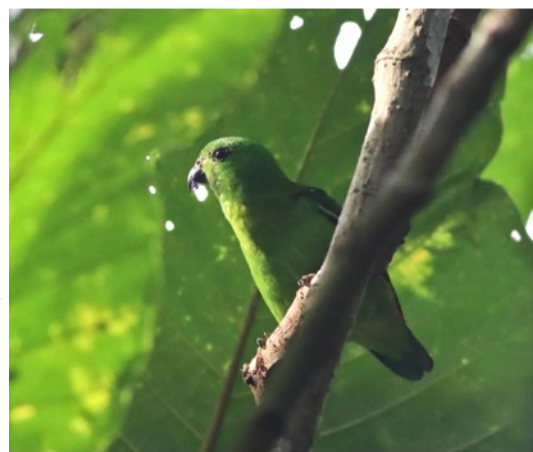
Apart from birds, we also spotted different butterflies including Peacock Pansy, Grey Pansy, Chocolate Pansy, Lime Swallow Tail, Common Cerulean, Grass Yellow, Great Mormon, Bluebottle, Common Emigrant, Common Four-ring, Great Egg-fly,



Orangutan mother & baby



Rainforest trek



Blue-crowned hanging parrot



Bluebottle butterfly (left) & Lime Butterfly (right)

(Continued on page 6)

(Continued from page 5)

Rustic, B & W Helen, Mottled Emigrant, Banded Swallow Tail, Common Sailor, Bush-Brown, Psyche, Raja Brooke's Birdwing, Tailed Jay, Great Crow. Other findings during the trek included a common tree frog and a beautiful green paradise flying snake. A fifth species of monkey was also sighted, the Pig-tailed Macaque (*Macaca nemestrina*). Across the rainforest large areas were cleared for rubber and palm oil plantations.

After two days in the rain forest, we went to Berestagi - a hill station in North Sumatra. Along the way, we spotted many butterfly species including Common Grass Yellow, Striped Albatross, Common Gull, Blue Pansy, Chocolate Pansy, Great Egg-fly, Tailed Jay, Common Sailor, and Common Emigrant (female). We also spotted an Oriental Garden Lizard and a female Nephila spider along with a male on the web.

We climbed Mount Sibayak, a volcanic mountain overlooking the town of Berestagi on a sunrise trek the following day. Though its last major eruption was over a century ago, there were several fumaroles (steam vents) around the area. Sulfur deposits were visible around the fumaroles.

Our next destination was Samosir Island, a large volcanic island in Lake Toba. This is the center of Batak culture, the ethnic group of the North Sumatran region of Indonesia. We visited Ambarita village, known for its distinctive Batak houses. We visited the workshop of a craftsman in the village and saw their traditional ways of life. Bird sightings on the island included Collared Kingfisher, Median Egret, Spotted Dove, Brahminy Kite, Ashy Drongo, Asian Gloss Starling, Olive-backed Sunbird, Warbling White Eye, Sooty-headed Bulbul, Black Browed Barbet, Golden Throated Barbet, Little Egret, Purple Heron and Pacific Swallow.

Apart from birds we also spotted butterflies such as Tiny Grass Blue, Common Mormon, 3-Spotted Grass Yellow, Pea Blue, and Cabbage White. We also spotted a Neoscona during dinner.

The last leg of the journey was to Medan city, the capital of North Sumatra. On the way we stopped by an orchid plantation where we sighted a few birds including Greater Coucal, Black-shouldered Kite, and Blue-tailed bee-eaters.

In Medan city, we visited Maimoon Palace and the Grand Mosque bringing the trip to a memorable end.

Acknowledgments: I am thankful to Dubai Natural History Group and the group leader Mr. Binish Roobas, participant photographer Mr. Zafar Inan who has provided photos for identification, Ms. Rabab Al Hadad, and Mrs. Michelle Sinclair for guiding me with related writing.

I acknowledge the effort taken by our tour guide Mr. Abdul Karim and guides Idris and Jogi. I offer gratitude to my parents, Vimal and Anjana, for taking me and my brother Arjun on this wonderful trip.



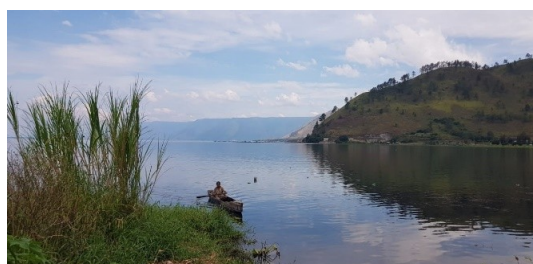
Paradise flying snake



Crater on Mount Sibayak



and... the intrepid explorers at the top



Lake Toba



Our guides



Team leader Binish with native Batak man



Batak house



Batak dance

Rare Plants Not So Rare

Contribution by Gary Feulner with Mai Tran

It is a commonplace among naturalists that plants and animals do not always read or obey what is written about them. It is always possible to find an odd specimen where it is not supposed to be, or doing what it is not supposed to do - e.g., standing erect as a shrub when it is normally a climber, or growing at low elevation in silt behind a dam when it is normally found on mountain slopes.

Sometimes, however, occurrences seem to be making a broader statement about their preferences and/or potential. Two recent examples illustrate the point.

The sticky-leafed annual *Anticharis glandulosa* (Scrophulariaceae) is said in *Wild Flowers of the UAE* (Jongbloed et al. 2003) to be rare and found only in scattered locations. Consistent with that statement, I have normally seen it over the years as only one or two plants in a gravel wadi bed. In late December 2022, however, in upper Wadi Al-Lyeli (Al-Ejaily) we encountered a number of small groves of this plant, each featuring up to dozens of tall, flowering specimens in moderately coarse gravel of both the wadi and the wadi bank (see accompanying photos).



Anticharis glandulosa: A track-side grove of dozens of erect plants



Anticharis glandulosa: Lavender flowers and sticky glandular leaves

A second example involves the prostrate spreading annual *Corchorus depressus* (Malvaceae). This species was recently highlighted in a Ras al-Khaimah think tank publication as a Near-Threatened species there. One may question that assessment a priori, since the plant is otherwise widespread in the UAE, not as a mountain plant but as a ruderal species - i.e. one which colonises disturbed ground including cleared land or circum-agricultural areas or abandoned fields. Again in late December we found it to be locally common in abandoned fields along upper Wadi Al Lyeli (see photos below) although this is a part of RAK territory not much visited. In January we found it common at a dam in southern RAK, in damp silt along the high water line where water had receded in recent weeks.



Corchorus depressus: Tiny wrinkled leaves, yellow flowers and long, thin fruits



Corchorus depressus: Cluster in an abandoned field

The lesson for naturalist observers is to remain observant and, with respect to conventional wisdom, to follow the mantra of nuclear disarmament protocols: "Trust, but verify" !

Dubai Natural History Group (DNHG) Programme 2022/2023

DNHG Lectures 2023

- 6 February: "The cultural, physiological and psychological aspects of ultra-running through the Sahara Desert"
by Harry George
- 6 March: Topic and speaker to be revealed later
- 3 April: "Archaeology in Afghanistan" - more details to follow soon
- 1 May: "The fauna of parasitic arthropods in the UAE" by Dr. Rolf Schuster

DNHG Field Trips 2023

- 11 - 18 February: Kerala, India (Trip Full)
- 24 - 26 February: 2023 Inter-Emirates Weekend
- 19 - 23 April: Tiger Safari in Ranthambore National Park, India (Trip Full)
- 20 - 28 May: In the Footsteps of Alexander the Great, Greece

For more information and sign-up please contact:

* Binish Roobas at binishroobas@hotmail.com for Kerala, Ranthambore National Park

* Sonja Lavson at lavson@gmail.com for Greece

DNHG COMMITTEE 2022/2023

When possible, please contact committee members outside office hours

	Name	Telephone	Email
Chairman	Gary Feulner	04 306 5570	grfeulner@gmail.com
Vice Chairman	Valerie Chalmers	050 830 5018	valeriechalmers@gmail.com
Treasurer	Puneet Kumar	050 452 4820	puneetcps@gmail.com
Membership Secretary	Alessandra Pipan	054 777 1183	lssndr.ppn@gmail.com
Speaker Co-ordinator	Michelle Sinclair	050 458 6079	sinclairmichelle611@gmail.com
Fieldtrip Co-ordinator	Sonja Lavrenčič	050 256 1496	lavson@gmail.com
Member-at-Large	Pradeep Radhakrishna	050 450 8496	wgarnet@eim.ae
Member-at-Large	Anindita Radhakrishna	050 656 9165	anin@eim.ae
Newsletter Editor	Heidi Struiksmá	055 899 2222	gazelleeditor@gmail.com
Librarian/Book Sales	Angela Manthorpe	058 135 4143	manthorpe2005@yahoo.co.uk
Website Co-ordinator	Alexis Biller	055 103 9014	alexis.biller@gmail.com

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

DNHG Membership

DNHG membership remains one of Dubai's best bargains at Dh100 for families and Dh50 for singles. Membership for the current year is valid from September 2022 to September 2023. As we have started hybrid meetings from September 2022, renewal fees can be paid at meetings or by the methods mentioned below.

New members can join by (i) sending to the Membership Secretary (see above) a completed one-page membership form, which can be downloaded from our website (www.dnhg.org) and (ii) making payment to our Emirates NBD account by cash deposit or transfer from your bank or ATM, using our IBAN number AE640260001012012013302. However, this process does not always identify the payer. So if you wish to pay by cash deposit, please also photograph or scan a copy of your payment confirmation and send via e-mail to the Membership Secretary, so we know whose money we have received.