

The Emirates Natural History Group in Al Ain Newsletter



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Geo Muggles Arise!

Are you a "Geo Muggle"? If so then have no fear, since most Geo Muggles have been found to be normal people and are pleasant to interact with.

This photograph is relevant to our discussion:



Gassed in a Greenhouse?

Are we being gassed to death in our earthly greenhouse?

Let's perform an analysis of what we are doing to our planet, courtesy of the following NASA link (in addition to a summary of the issue written by Digby Scorgie in New Zealand).

<http://climate.nasa.gov/evidence>

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Past/Upcoming Events:

Committee Meeting

7 January Islamic Institute 7:30 pm

Recce: Possible Field Trip Sites

10 January Foah, Madam Plain 8:00 am

General Meeting: UAE Tombs, Burials

14 January Islamic Institute 7:30 pm

Walk: Possible Field Trip Sites

17 January Jebel Qatar Cancelled

Walk: Airport Road

24 January Airport Road Afternoon

General Meeting: To be announced

28 January Islamic Institute 7:30 pm

Committee Meeting

4 February Islamic Institute 7:30 pm

General Meeting: To be announced

11 February Islamic Institute 7:30 pm

From Page 1 – Geo Muggles Arise!

The “Paradise Hanging Garden” that used to be located in Al Ain has moved to Dubai and is now called the “Miracle Garden”. The above spectacular floral display illustrates one of the many great locations that one can visit in the UAE.

How can one discover such locations? Read on, there is a fun way to do that either on your own or with friends. (There are two “geo caches” close to the floral display location, read on to understand what this means.) Maybe future field trips can include converted Geo Muggles?

It normally takes time to research places of interest in a country that is new to one and to visit desirable locations, often only to discover that the locations have been closed down or have moved.

Some UAE visitors rely on their GPS (Global Positioning System) receivers to travel around. However that is often not enough on its own (since roads are always in a state of flux, much of the landscape is flat and looks very much the same). Roundabouts, mosques and many buildings have the same architectural characteristics (e.g. the same brown color) and are duplicated (so it is easy to get confused and lost).

Those people that are NOT Geo Muggles (i.e. the so-called “Geo Cachers”), have an advantage over Geo Muggles (i.e. the rest of humanity). Geo Cachers know about hidden “treasure” that can be found all over the UAE at hidden locations and indeed in the rest of the world.

All that Geo Cachers require is a GPS device, “treasure” to place in a cache, a pen and an Internet connection in order to have fun, visit interesting places and share experiences (possibly meeting other Geo Cachers in the process).

A Geo Muggle is a person that does not know about the typical geo caching process. The term “Muggle” originates from a popular book and movie series that compared people having “magic” capabilities to those that do not. So if you don’t know how to geo cache then you are a Geo Muggle by definition. That means you are missing out.

Simply put, there are hundreds of locations that you can visit (cache locations as listed on the Internet) and you use a GPS receiver to do that. Most of these caches are placed at places of general interest in Al Ain and elsewhere (such as Green Mubazzarah). The process involves finding the cache, exchanging items in the cache (if you want to) and filling in a log at the site (and on the internet) to record your find.

All of this is not as easy as you might think (but it is a lot of fun and it takes you to places where others have been – so you don’t need as much research to find cool places). The caches typically vary in size from a “nano cache” (about the size of the top phalange on your pinky finger) to a lunchbox sized container. See the “Photo Frenzy” section in this newsletter for a cache example, caches are a means to an end.

If you require more information consider the www.geocaching.com web site. There is also an article in The National newspaper relating to a cache in Al Ain as indicated below. Please read the comments at the end of the National article (since the Geo Cachers involved in placing the cache did not properly follow the prescribed process).

<http://www.thenational.ae/lifestyle/motoring/reader-challenge-weve-hidden-a-geocache-in-the-desert-for-you>

It is hoped that you will visit the geo caches in Al Ain in particular and the many others elsewhere. In particular make the effort to transition from being a Geo Muggle to a Geo Cacher if all of this is new to you and if you wish to better explore the UAE and elsewhere. ✕

Please remember to tell the Editor or other Committee Member as to what you would like to see in this Newsletter and to support that opinion by providing the Editor with an article or artifact (such as an unusual photograph or two) to place into the next newsletter!

The Library

The library is housed in our ENHG room in the Islamic Institute. Members and non-members can access the catalog on-line under www.librarything.com/catalog/enhg.

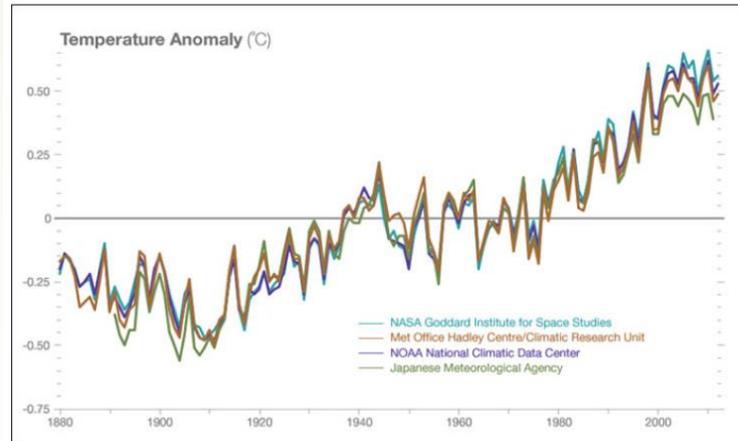
The lending collection is available to members on a short term loan basis. Anyone is welcome to contact Verena (see the contacts information on the back page) and she will make the arrangements for book access. Leslie Butler has kindly provided us with a useful collection of Al Ain books (Al Ain’s Environs: A guide to Guide Books) and this collection definition has been provided for you in this newsletter.

Please do see the article entitled “Guiding Light”, it lights the way to these Al Ain environs. ✕

Gassed in a Greenhouse? (Continued from page 1)

Global temperatures have been proven to be climbing, see the following graph.

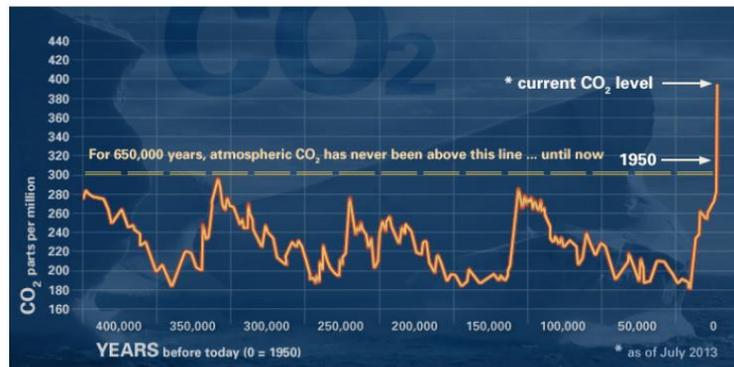
Consensus: 97% of climate scientists agree



Temperature data from four international science institutions. All show rapid warming in the past few decades and that the last decade has been the warmest on record.

Please refer to the NASA site on page one for the supportive reference works that relate to the following statements. Carbon dioxide (CO₂) is a so-called "greenhouse gas". It traps Earth's heat and too much of it warms up the entire planet. It is also a "goldilocks" gas. We need a certain amount of it in the atmosphere for life as we know it to flourish. Too little of the gas, and the planet freezes; too much, and the planet overheats. The "goldilocks" CO₂ amount is about 300 ppm (parts per million). Here is what has been happening to Earth's CO₂ levels over the last 400 000 years.

Climate change: How do we know?



This graph, based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO₂ has increased since the Industrial Revolution. (Source: NOAA)

The concentration of atmospheric CO₂ has been increasing relentlessly since the beginning of the Industrial Revolution. And the rate of increase is accelerating. We passed the "goldilocks" amount a century ago, we have reached 400 ppm, and we are headed for 800 ppm by the end of the century. Clearly the planet is going to overheat. And the effects take time to realize, although recent USA events are of concern.

In past geological ages, when CO₂ levels stabilized at about 400 ppm, the average global temperature was roughly two degrees Celsius higher than pre-industrial temperatures. Although we have again just reached the same level of 400 ppm, it will actually be some time before the corresponding increased temperature is attained. The temperature increase above pre-industrial values is currently about one degree Celsius and will probably reach two degrees only by mid-century.

An increase of two degrees sounds trivial, but the effect on the Earth's climate is disproportionately dramatic. The trend is towards disappearing glaciers, melting polar ice caps, rising sea levels, and warming oceans spawning ferocious storms. The equatorial belt becomes hotter and wetter. At mid-latitudes deserts expand as conditions become hotter and drier. The higher latitudes become more temperate.

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Ditholo Nature Reserve

The Ditholo Nature Reserve in South Africa is to be found to the North of Pretoria.

The photograph in the previous edition of this newsletter was of a fungus found growing on a tree in the Reserve.

The above images should speak for themselves.

Can anybody identify the flora or fauna in question? ✕

Gassed in a Greenhouse? (Continued from page three)

The above climatic conditions require time to come into force once the temperature increase reaches two degrees. The effects will probably only become obvious towards the end of this century. There is therefore at least a century's delay before the consequences set in motion by the 400 ppm CO₂ reality actually take effect.

Unfortunately, while the climatic changes set in motion today are taking effect, CO₂ levels and global temperatures are continuing to increase. By the end of the century the temperature increase will have reached about four degrees and the CO₂ level about 800 ppm, precipitating an even greater temperature increase to six degrees.

The last time when average global temperatures were six degrees above the pre-industrial values, conditions on the Earth were catastrophic. There was a mass extinction of much of the life on the planet at that time. Two degrees is bad enough; we don't want six degrees. Continuing with business as usual, however, will lead inexorably to six degrees of warming and outright catastrophe.

The origin of the added CO₂ in the atmosphere is well known. Some results from deforestation, but the bulk arises from burning fossil fuels (e.g. the petrol commonly used in motor vehicles).

This is something that has been occurring to an increasing extent during the past 200 years of our industrial age. Farming and industry contribute to secondary greenhouse gases. But the worst offender remains fossil fuel.

The solution to avoiding catastrophe is therefore obvious: humanity must burn much less fossil fuel (and find/use alternative energy sources).

That implies less fossil fuel for electricity generation and less for cars, trucks, ships and aircraft.

The UAE initiative to use nuclear energy for future power stations thus makes good sense (despite the radiation concerns and other possible dangers involved, there is never a perfect solution and one should look at all of the consequences related to any strategic decision).

Good lessons were learnt from previous disasters (such as Chernobyl), so the likelihood of further disasters has been drastically reduced.

Readers may judge for themselves the likelihood of all of the above coming to pass and to gauge the ultimate effects on our children and their children. ✕

Who's Who (Brigitte Howarth)

Here is an article in a series that features ENHG members; our Chairperson Brigitte is first (see her picture on the next page).

She arrived in the UAE with her family in September 1998 after having obtained a Ph.D. (the thesis was entitled 'Batesian Mimicry in the British Syrphidae').

Brigitte holds the Chair of the Department of Natural Science and Public Health post at the Zayed University.

She is currently working on extending the UAE dipteran records, she is also interested in other insect orders and the ecology of their associated habitats.

She spends time as often as she can in wadis and the desert environment, observing, identifying, and recording fauna and flora, culminating in periodic publications. ✕

Photo Frenzy



Our Chairperson Brigitte Howarth received the Bish Brown Award in 2013



A small geo cache with its contents displayed on a car dashboard



An HC 600 Hyperfire "photo trap"

The Abu Dhabi Environmental Agency (EAD) kindly provided the Al Ain ENGH with three "photo traps" (the one above is shown resting on a blue office chair).

The unit has an internal camera, an infra-red motion sensor and space for an SD card. Twelve AA-sized batteries power the unit and provide power for up to 60 000 images to be taken per battery life.

So the idea is to place the trap at a remote nature-friendly location (so as to capture the fauna moving past in action) and without disturbing the creatures under study.

If you are prepared to place one of these at a suitable location and look after it, please contact the Chairperson Brigitte (contact details on the last page of this newsletter). We look forward to seeing some stunning photographs from these traps soon! Happy snapping! ☺

Guiding Light (By Leslie Butler)

There are no useful guides to the local Al Ain environment in local bookshops. Weird, but that's the case. Nevertheless, some excellent guides are obtainable with effort, and here are four to consider.

Second Best field guide –Geological Features of the United Arab Emirates by Benjamin R. Jordan. Published by IAEU Publications Dept. (No ISBN.)

Forty three geological features, many in or around Al Ain, illustrated with clear photos and single paragraph accounts of their origins. Pocket size, at 22 X 15 cm. Unavailable even from Amazon, but there are copies in UAEU library, or you can view or print it yourself from:

http://www.enhg.org/alain/ben/features_web.pdf .

Best Field Guide: Geotrekking in Southeastern Arabia: A Guide to Locations of World-Class Geology Benjamin R. Jordan, Geopress, ISBN 978-0-87590-735-2. 2012 Available by mail from the American Geophysical Union or Amazon.

Nine 'routes' (day trips) within Northern UAE and Oman, illustrated with diagrams, photographs and descriptions. Designed for field use (strong paper, spiral bound). This splendidly helpful publication cannot be purchased in its home town – the work was done while the author was working in UAEU.

Second Best General Description Natural Emirates: Wildlife and Environment of the United Arab Emirates Various Authors, 1996. Published by Trident press Ltd. ISBN 1-900724-02-2 Out of print, but available through Amazon. This enjoyable introduction to local geology, habitats and wildlife, is too wordy for a field, but makes a fine armchair companion. Authoritative text with high quality photographs and drawings.

Absolutely the Best General Description The Emirates - A Natural History by Peter Hellyer & Simon Aspinall (Eds). Published by Trident Press, 2005. (ISBN: 1-905486-02-2) Available from the Abu Dhabi Environment Agency office (AED350), or Amazon.

As above but bigger and better. This handsome tome covers everything, including coffee tables.

Happy reading! ☺



Danat Resort Hotel

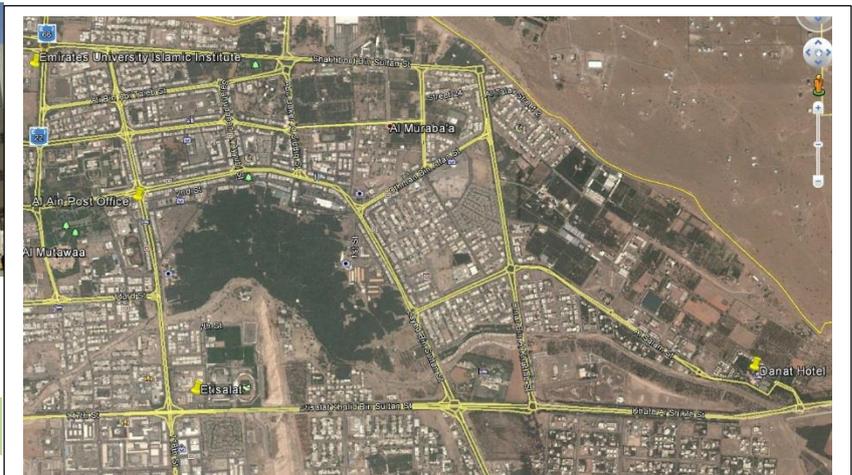
Meeting Locations

The Al Ain Chapter of the ENHG meets in two locations, the Danat Resort Hotel (at times when this venue is available) and also the Emirates University Islamic Institute.

General meetings as well as committee meetings take place on announced Tuesdays, all members and invited friends are welcome to attend either set of meetings.

Location Details (Courtesy of Google Earth)

UAE University - Islamic Institute



Danat Resort GPS location : 24 12 29.32 N 055 48 15.69 E

Islamic Institute GPS location: 24 13 44.80 N 055 44 59.50 E

www.enhg.org

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