



## Emirates Natural History Group Al Ain Chapter Newsletter 2009/IV

Hot season has started. Nevertheless hikes – usually scheduled Friday and Saturday – are very popular amongst our members.

The Al Ain Chapter photographic competition was one of the highlights of the past few weeks. The results are summarized in the article below.

### ENHG Al Ain Chapter Committee

**Committee members:**

**Chair:** Brien Holmes; **Vice Chair** Brigitte Howarth; **Treasurer:** Simon Wall; **Secretary:** Saima Tariq Khan;  
**Membership:** Amer Abu Kuhail; **Photography:** Bob Reimer; **Newsletter:** Roland Ochmann; **Library:** Amer Abu Kuhail/ Marybeth Gaudette; **Flora:** Martha Coetzee; **Fauna (Insects):** Brigitte Howarth; **Fauna (Birds):** vacant;  
**Environment:** Jodie Healy

Visit the webpage at <http://www.enhg.org/index.htm> or contact us at [enhg@yahoo.com](mailto:enhg@yahoo.com) (all Al Ain chapter members)

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### Upcoming Events

June  
July

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### General Meetings

The general meetings are held on the second and fourth Tuesday at Al Ain InterContinental Resort hotel at 19:30. Watch out for ENHG email for themes.

Upcoming meetings:

**June 09** – reptile workshop

**June 23** – year end review

**July 28** – film night

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## Committee

Committee meetings are held on the first Tuesday of each month at the Al Ain English Speaking School. Everyone is welcome to participate! We are always looking for people to join our discussions and help deliver events.

The next Committee meeting will be Tuesday 07 July at 7:30 pm in the work room at the Al Ain English Speaking School.

## News

Themes and ideas for the Inter Emirates Weekend 2010, organized by Al Ain Chapter.

During the photo competition the audience has been informed that suggestions for activities for next years Inter Emirates Weekend can be submitted by the members. A suggestion box at the entrance could be used, also people can give their ideas and suggestion to anyone of the committee members. We appreciate your help and support to assure that the IEW 2010 in AL Ain will be a remarkable event.

## Walking and Hiking Trails in Al Ain

Town Planning Department is thinking about to install Walking Trails for residents, tourists and visitors through Al Ain city and Hiking Trails of different difficulties around Jebel Hafeet with signs of explanation about geology, plants and animals. Our chairman Brien briefed them in a meeting with a lot of information about the matter including literature, dvd's and points of interests.

We keep in touch for the further progress.

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## The Library

The Library is now situated in our room at the Palace museum. Amer, Heather and Marybeth are busy putting the collection online.

Our library database can be searched and visited under [www.librarything.com/catalog/enhg](http://www.librarything.com/catalog/enhg)

If you're looking for a publication, videotape or periodical, please contact Marybeth [mary.gaudette@gmail.com](mailto:mary.gaudette@gmail.com). We try to put an inventory list on our webpage so everybody can look for something they are interested in or something special they may be looking for. Any problems? – just ask Marybeth.

We have prepared a DVD-collection of **20 DVDs** including all videos and CDs in our library. We are offering this set to members for Dh 100. These are available to ENHG members only. You can subscribe at the general meetings for your collection.

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## What Happened Previous Weeks? Walks and Hikes

Some of the recent walks and hikes:

**Friday 25/04** Wadi Aboul: survey of the wadi and hike from Aboul to Ramthah

**Saturday 26/04** Wadi Khutwah: A return to one of the more popular oasis communities along the foothills of the Hajar Mountains

**Friday 01/05** Second Nizwa weekend, detailed report pls. see below  
Friday light trapping Fossil Valley;

**Saturday 02/05** Wadi walk Khadrah Oasis

In the past few years, local authorities have made many changes to Khadrah, including new walls along the paved road that links the new housing with the original settlement inside the oasis. Small parks have been developed inside and around the oasis, and street lights have been installed. Even with these changes, Khadrah remains an attractive settlement to visit as the wadi that runs in a horseshoe shape around the cultivated area always has a strong flow of water as the catchment area

is immense. The diversity is such that we have often used the oasis as the site for habitat studies for local students. The presence of water means the plant and insect populations are always strong and varied, and the marine life includes fish, toads, water scorpions and more.

**Wednesday 06/05** plant workshop: The workshop will begin by looking at how plants are classified and the different orders, focused upon the Family level of classification. We looked at some of the identifying features of the more common families for this area and made our hand at locating these different features on actual specimens. We also included a bit of plant terminology to make using plant reference material a little more accessible.

**Thursday 07/05 Full Moon walk at Wadi Musah**  
Musah is probably the chapter's favorite destination for moon walks because of the variety in landscapes and the opportunity for a swim. We hiked through the oasis and up the wadi to the swimming hole and beyond, returned by a slightly different route so we were on the ridge overlooking the oasis as we head back to the cars.

**Friday 08/05** Friday Wadi Nahayan at Jebel Hafit, several activities. We have visited Wadi Nahayan, at the base of Jebel Hafit, several times this season and we have done one more visit before the summer heat arrived and the plants are lost for another season.

**Saturday 09/05** Dhow Trip RAK, Wadi xxxxx, some impressive panoramic pictures



**Friday 15/05** Friday Juwaif hike and swim. The latest discovery from Jodie offered a new hike in an area between Juwaif and the Swiss Mountains. There are a number of old settlements in the area - some more permanent looking with terracing and houses whilst others seem to be the remains of hunting camps. The hike was a loop, with some of it on a track made by a very adventurous/determined driver (or fisherman – and you'll have to come on the hike to hear about that one!!) and it dips in and out of the wadi. There's one fairly gradual 'up and over' and numerous ups and downs, but we've been rewarded with a bit of peace and quiet under the shade of a sidr tree on one of the terraces and a swim in what can only be described as Buraimi's first infinity pool.

**Saturday 16/05** Saturday Mezyad Fort and Jebel Hafit tombs

**Friday 22/05** Wet Wadi Walk

## 2<sup>nd</sup> Nizwa weekend trip from 01-02 May 2009 2009

The chapter's second trip the Nizwa district was held beginning of May 2009 and attracted a small but enthusiastic group. The itinerary included new stops in other communities around Nizwa which will be added to the list of attractions for members who head out to explore on their own.

The trip included another completion of the hiking trail on Jebel Shams with much better weather than experienced during the chapter's first Nizwa weekend.



Friday's program began with a visit to the Nizwa souq followed by a road trip that included Adam and Izki. Saturday most of the group completed the Cliff Walk while others toured some of the attractions in the area.

The long, dense oasis at Adam was one of the new destinations. Adam is one of the last communities motorists pass through on the drive from Nizwa to Salalah before crossing the edge of the Empty Quarter. Adam is actually a collection of several small communities or districts, one of which is called Al Ayn. Inside the oasis are several walled communities, now abandoned but visible from Google Earth quite clearly.

The planned route called for a visit to one of the walled communities before walking through the oasis to the next walled community, visiting one of the old mosques en route. However, we missed our starting point and had an enjoyable albeit impromptu tour of part

of the oasis. Our next stop was the collection of 3rd millennium tombs near Izki. Our schedule did not permit a hike along the low mountain ridges where the majority of the tombs are located; we settled on a stop at the site developed by the Oman antiquities department which includes several tombs, some of which are fenced for preservation.



The afternoon ended with a visit to the town of Izki and its magnificent hilltop ruins. Our tour included one of the two abandoned walled communities and one of the impressive forts. Evidence suggested some of the houses had been abandoned only recently.

One of the exciting parts of the day was spent driving through the narrow roads in the labyrinth of pathways in the Izki oasis.



One of the surprises of the weekend was the discovery of three sites that have been developed in Hamra, one of the destinations included in previous visits to the Nizwa district. The private home of one of the local sheikhs has been opened to the public and is called Bait al Safah. The group often visits sites where houses, occupied in the late 20th century and earlier, are in ruins, notably at settlements like Manah. At Bait al Safah, members could see what these houses looked like when they were occupied. The organizers have collected an impressive assortment of household items in what is best described as a living museum. Volunteers from the community of Hamra are on hand to explain items and daily life.

Nearby, another of the impressive three-storey buildings has been converted to a museum and a third is now open as a hotel.

Of course, the old covered souq at Hamra is always worth a visit.

Adam - aerial view



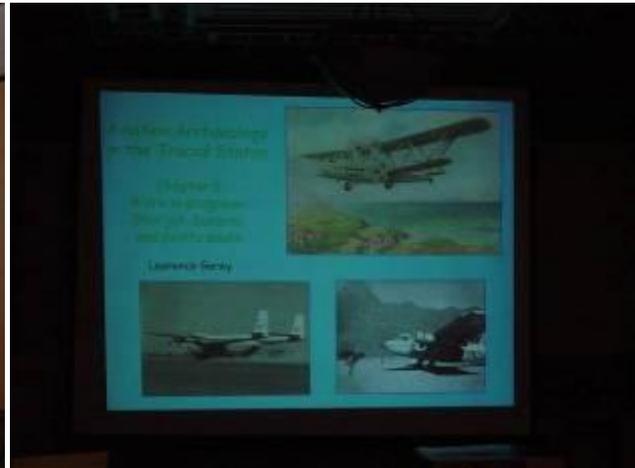
## Meetings

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### 28 April: Double Feature

#### Aviation archaeology in the crucial states - chapter 2

By Laurence Garey



Laurence gave us an update of his latest investigations about aviation in the UAE, enriched with a lot of pictures of former pilots and members of the air forces

Laurence Garey, who has contributed a number of research papers to the chapter including his study of camels' brains, brought us up to date on his research of the history of aviation in this part of the world. Many of our members will recall his earlier presentation on the history of aviation in Oman and the UAE when the countryside was dotted with landing strips and Sharjah boasted the busiest of the commercial and military airfields. Though he has only been visiting Al Ain for a few weeks, he has already noted the loss of the old Al Ain landing strip and the location of the old landing strips in Al Buraimi.

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## Giant beetle update

by Mike Gillett



Mike gave us an overlook of the results on his previous and actual observations about giant beetles.

Our second speaker was Mike Gillett who has been visiting for several weeks and has joined members on light trapping sessions and weekend field trips. Mike and Brigitte were featured in an article in *The National* last autumn for their work on beetles.

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### 12 May:

#### "The high terraced settlements of the Ru'us al-Jibal"

A trip into a part of the Oman peninsula few of us are able to explore

By Gary Feulner, Chair of the Dubai Natural History Group

The Ru'us al-Jibal – the mountains of the Musandam Peninsula – remain remote and forbidding to outsiders, but scattered among them, sometimes in the most unlikely places, are more than 100 substantial terraced settlements that bear witness to human occupation and use over hundreds of years. Gary's talk has been a basic introduction to these settlements – their physical setting, their layout and scale, water management, agriculture, architecture, household and agricultural implements, and cultural features such as graveyards and rock art – and also hypothesized about what motivated the settlement of such areas and what made settlement possible.

Gary has been exploring the Ru'us al-Jibal since 1991 and in late 2001 was the principal guide for an archaeological survey by Prof. Derek Kennet of Durham University, which investigated 31 Ru'us al-Jibal settlements.

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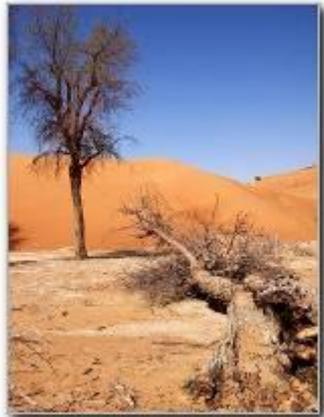
### 26 May: Photo competition season 2008/2009

On Tuesday 26 May 2009 the long awaited photo competition 2009 took place in Al Ain Intercontinental. It has been a well visited event, where numerous members could inspect all 117 pictures and vote for 'people's choice'.

The chatting with friends and colleagues about the masterpieces has been "sweetened" with snacks and cookies, juice and coffee or tea. After 1 hour the people were complimented to the hall and after a short introduction the picture show began.

Before it started, a lifetime membership has been rewarded to Bill Jones (in absence, he's in Australia and will return in summer for holiday) for his contribution to the ENHG community. The full laudation can be seen on our webpage.

After presenting all entrances on every category, the jury's decision was announced and the prizes were handed over to the winner (if present). All pictures can be viewed on our website. Here are the winners of their categories.

Category Winners			
Category	Prize	Entrant	Title
Architecture and Archaeology	1 <sup>st</sup> Prize	Dave Clark	Grand Mosque 
	2 <sup>nd</sup> Prize	Mike Green	Hafeet Tombs
	3 <sup>rd</sup> Prize	Roland Ochmann	Aisle
Animals in the Wild	1 <sup>st</sup> Prize	Dave Clark	Lesser Kestrel 
	2 <sup>nd</sup> Prize	Dave Clark	Sandstorm Heron
	3 <sup>rd</sup> Prize	Amer Abu Kuhail	I wonder
Culture and Heritage	1 <sup>st</sup> Prize	Mike Green	Dawn Walk 
	2 <sup>nd</sup> Prize	Amer Abu Kuhail	Reflection
	3 <sup>rd</sup> Prize	Jerry Buzzell	The Visit
Environmental Issues	1 <sup>st</sup> Prize	Karen Reid	The Quick and the Dead 

Category Winners			
Category	Prize	Entrant	Title
	2 <sup>nd</sup> Prize	Mike Green	Buraimi Bones
	3 <sup>rd</sup> Prize	Huw Roberts	Red-wattled Plover
Miscellaneous	1 <sup>st</sup> Prize	Janet Jones	We Now Have Electricity
			
	2 <sup>nd</sup> Prize	Geraldine Kershaw	Noah's handiwork
	3 <sup>rd</sup> Prize	Simon Wall	Lightning strike
People of the UAE and Oman	1 <sup>st</sup> Prize	Barbara Reimer	Contentment
			
	2 <sup>nd</sup> Prize	Brian Burgess	Tug of War
	3 <sup>rd</sup> Prize	Dave Mikhail	Judge at Bull Pushing
Plants in the Wild	1 <sup>st</sup> Prize	Rob Reid	<i>Saccharum ravennae</i> - a palette of paintbrushes
			
	2 <sup>nd</sup> Prize	Karen Reid	Floral Candyfloss
	3 <sup>rd</sup> Prize	Bob Reimer	Sorrel, <i>Rumex vesicarius</i>
	3 <sup>rd</sup> Prize	Dave Clark	Desert Bonsai
'Scapes	1 <sup>st</sup> Prize	Mike Green	Dune Grazing

Category Winners			
Category	Prize	Entrant	Title
			
	2 <sup>nd</sup> Prize	Jerry Buzzell	The Road Beyond
	3 <sup>rd</sup> Prize	Mike Green	View of Tal Moreeb
	3 <sup>rd</sup> Prize	Brian Burgess	Rippled Sand and Blue Skies

Peoples' Choice Winner		
Place	Entrant	Title
1 <sup>st</sup>	Dave Clark	Lesser Kestrel (see above)
2 <sup>nd</sup>	Dave Clark	Sandstorm Heron
3 <sup>rd</sup>	Jerry Buzzell	Barefoot on the Beach
3 <sup>rd</sup>	Marybeth Gaudette	Dune Play

## Birds of Al Ain

List Report for Jebel Hafeet area

Species on list 233.. Total number of entries on list 233.

Courtesy by Tommy Pederson, [www.uaebirding.com](http://www.uaebirding.com)

<p><b>Podicipediformes</b>  <b>Grebes (Podicipedidae)</b>            Little Grebe (<i>Tachybaptus ruficollis</i>)            Great Crested Grebe (<i>Podiceps cristatus</i>)  <b>Pelecaniformes</b>            Cormorants (<i>Phalacrocoracidae</i>)            Great Cormorant (<i>Phalacrocorax carbo</i>)  <b>Ciconiiformes</b>            Storks (<i>Ciconiidae</i>)            Black Stork (<i>Ciconia nigra</i>)            White Stork (<i>Ciconia ciconia</i>)            Marabou (<i>Leptoptilos crumeniferus</i>)            Ibises and Spoonbills (<i>Threskiornithidae</i>)            Sacred Ibis (<i>Threskiornis aethiopicus</i>)            Herons, Egrets and Bitterns (<i>Ardeidae</i>)            Little Bittern (<i>Ixobrychus minutus</i>)            Black-crowned Night Heron (<i>Nycticorax nycticorax</i>)            Striated Heron (<i>Butorides striata</i>)            Squacco Heron (<i>Ardeola ralloides</i>)            Cattle Egret (<i>Bubulcus ibis</i>)            Grey Heron (<i>Ardea cinerea</i>)            Goliath Heron (<i>Ardea goliath</i>)            Purple Heron (<i>Ardea purpurea</i>)            Great Egret (<i>Ardea alba</i>)            Little Egret (<i>Egretta garzetta</i>)            Western Reef Heron (<i>Egretta gularis</i>)  <b>Anseriformes</b>            Ducks, Swans and Waterfowl (<i>Anatidae</i>)            Greylag Goose (<i>Anser anser</i>)            Egyptian Goose (<i>Alopochen aegyptiaca</i>)            Ruddy Shelduck (<i>Tadorna ferruginea</i>)            Muscovy Duck (<i>Cairina moschata</i>)            Gadwall (<i>Anas strepera</i>)            Eurasian Wigeon (<i>Anas penelope</i>)</p>	<p>Lesser Grey Shrike (<i>Lanius minor</i>)            Southern Grey Shrike (<i>Lanius meridionalis</i>)            Woodchat Shrike (<i>Lanius senator</i>)            Masked Shrike (<i>Lanius nubicus</i>)  <b>Orioles (Oriolidae)</b>            Eurasian Golden Oriole (<i>Oriolus oriolus</i>)  <b>Drongos (Dicuridae)</b>            Ashy Drongo (<i>Dicurus leucophaeus</i>)  <b>Crows and Jays (Corvidae)</b>            House Crow (<i>Corvus splendens</i>)            Brown-necked Raven (<i>Corvus ruficollis</i>)  <b>Swallows and Martins (Hirundinidae)</b>            Brown-throated Martin (<i>Riparia paludicola</i>)            Sand Martin (<i>Riparia riparia</i>)            Pale Martin (<i>Riparia diluta</i>)            Barn Swallow (<i>Hirundo rustica</i>)            Eurasian Crag Martin (<i>Ptyonoprogne rupestris</i>)            Pale Crag Martin (<i>Ptyonoprogne obsoleta</i>)            Common House Martin (<i>Delichon urbicum</i>)            Asian House Martin (<i>Delichon dasypus</i>)            Red-rumped Swallow (<i>Cecropis daurica</i>)            Streak-throated Swallow (<i>Petrochelidon fluvicola</i>)  <b>Larks (Alaudidae)</b>            Greater Hoopoe-lark (<i>Alaemon alaudipes</i>)            Desert Lark (<i>Ammomanes deserti</i>)            Greater Short-toed Lark (<i>Calandrella brachydactyla</i>)            Crested Lark (<i>Galerida cristata</i>)            Eurasian Skylark (<i>Alauda arvensis</i>)            Black-crowned Sparrow-lark (<i>Eremopterix nigriceps</i>)  <b>Cisticolas and Allies (Cisticolidae)</b>            Streaked Scrub Warbler (<i>Scotocerca inquieta</i>)            Graceful Prinia (<i>Prinia gracilis</i>)  <b>Bulbuls (Pycnonotidae)</b>            White-eared Bulbul (<i>Pycnonotus leucotis</i>)</p>
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Mallard ( <i>Anas platyrhynchos</i> ) Northern Shoveler ( <i>Anas clypeata</i> ) Northern Pintail ( <i>Anas acuta</i> ) Garganey ( <i>Anas querquedula</i> ) Eurasian Teal ( <i>Anas crecca</i> ) Red-crested Pochard ( <i>Netta rufina</i> ) Common Pochard ( <i>Aythya ferina</i> ) Tufted Duck ( <i>Aythya fuligula</i> ) <b>Falconiformes</b> <b>Falcons (Falconidae)</b> Lesser Kestrel ( <i>Falco naumanni</i> ) Common Kestrel ( <i>Falco tinnunculus</i> ) Sooty Falcon ( <i>Falco concolor</i> ) Eurasian Hobby ( <i>Falco subbuteo</i> ) Lanner Falcon ( <i>Falco biarmicus</i> ) Peregrine Falcon ( <i>Falco peregrinus</i> ) Barbary Falcon ( <i>Falco pelegrinoides</i> ) Osprey ( <i>Pandionidae</i> ) Osprey ( <i>Pandion haliaetus</i> ) <b>Passeriformes</b> Shrikes ( <i>Laniidae</i> ) Brown Shrike ( <i>Lanius cristatus</i> ) Red-backed Shrike ( <i>Lanius collurio</i> ) Isabelline Shrike ( <i>Lanius isabellinus</i> ) Long-tailed Shrike ( <i>Lanius schach</i> )	Red-vented Bulbul ( <i>Pycnonotus cafer</i> ) White-spectacled Bulbul ( <i>Pycnonotus xanthopygos</i> ) Old World Warblers ( <i>Sylviidae</i> ) Savi's Warbler ( <i>Locustella luscinioides</i> ) Great Reed Warbler ( <i>Acrocephalus arundinaceus</i> ) Clamorous Reed Warbler ( <i>Acrocephalus stentoreus</i> ) Moustached Warbler ( <i>Acrocephalus melanopogon</i> ) Sedge Warbler ( <i>Acrocephalus schoenobaenus</i> ) Eurasian Reed Warbler ( <i>Acrocephalus scirpaceus</i> ) Marsh Warbler ( <i>Acrocephalus palustris</i> ) Eastern Olivaceous Warbler ( <i>Iduna pallida</i> ) Upcher's Warbler ( <i>Hippolais languida</i> ) Willow Warbler ( <i>Phylloscopus trochilus</i> ) Common Chiffchaff ( <i>Phylloscopus collybita</i> ) Plain Leaf Warbler ( <i>Phylloscopus neglectus</i> ) Green Leaf Warbler ( <i>Phylloscopus nitidus</i> ) Eurasian Blackcap ( <i>Sylvia atricapilla</i> ) Barred Warbler ( <i>Sylvia nisoria</i> ) Lesser Whitethroat ( <i>Sylvia curruca</i> ) Desert Whitethroat ( <i>Sylvia minula</i> ) Hume's Whitethroat ( <i>Sylvia althaea</i> ) Eastern Orphean Warbler ( <i>Sylvia crassirostris</i> ) Asian Desert Warbler ( <i>Sylvia nana</i> ) Common Whitethroat ( <i>Sylvia communis</i> ) Menetries's Warbler ( <i>Sylvia mystacea</i> )
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## Flint knapping

By Jeffrey Imes

[For those who missed the impressive “flint knapping evening with workshop” at Jeffrey’s house on 21.April here’s a short compendium about the art of our ancestors.](#)

Flint knapping, the art of fashioning stone tools and ornaments from rock, was the topic of a presentation and demonstration by Jeffrey Imes on Tuesday April 21st. The event was attended by a dozen ENHG members who heard about the materials and tools commonly used in flint knapping. The attendees were able to study an array of completed spear and arrow points, and were invited to try their hand at flint knapping.

The use of stone tools in the Emirates likely began to die out with the introduction of copper smelting and discovery of bronze in the Bronze Age, beginning about 3000 BC. In North America the Stone Age lasted much longer. When the Europeans arrived in North America in the early 1500s, the use of metal for tools was limited to a few copper axes made from raw (not smelted) copper. The metal tools that they brought to Americas eventually replaced stone tools because of their durability and availability. The knowledge of flint knapping had almost died out by the mid 1800s. In 1911, a starving Yana (Yahi) Native American named Ishi (“man” in Yana language) stumbled out of the mountains of northern California, the last of a small isolated surviving family. He eventually came to work at the University of California’s anthropology museum where he taught Native American skills, including flint knapping. This began a revival of the lost art of flint knapping in America.

Several natural and man-made materials can be used in flint knapping, including chert (flint), obsidian, jasper, agate, and quartzite. The main criteria are that the stone must fracture in a reproducible and controllable manner. Most of the natural rocks suitable for knapping are classified as chalcedony, a microcrystalline form of silica. Obsidian is a natural volcanic glass. There is considerable confusion between the terms chert and flint. Geologically and chemically, there is no difference. Both are massive opaque forms of chalcedony. Flint knappers often use the terms chert and flint interchangeably, but also may associate the term flint with the finer-grained and smoother silicate rocks.



Some cherts and other knapping material must be heat treated to make them workable (that is, easier to remove more uniform and longer flakes when struck). Sometimes heat treating will change the color of the rock as well as its fracturing characteristics. For example, Burlington chert (Missouri, USA) must be heated to about 550 degrees Fahrenheit (288 Celcius) for 24 hours, then allowed to slowly cool over 1 to 2 days. The normally

blue-gray color of the chert will change to pinkish white with red/pink inclusions (caused by iron impurities).

Coarse-grained Arkansas Novaculite (Arkansas, USA) is almost unusable in its raw state, but can be worked after heat treating to about 950 degrees Fahrenheit (510 Celcius).

Good knapping materials produce conchoidal fracture patterns when struck, and the finer-grained materials produce longer and more-easily controlled flakes. The fracture angle is about 50 to 55 degrees from the direction of the strike. Much of the skill needed for flint knapping involves learning to hold the stone at a proper angle to the direction of strike and striking with the proper force. There are two basic methods of removing flakes from a stone, percussion flaking and pressure flaking.

Percussion flaking is used to remove a large amount of mass and thin the raw material by striking the stone with a blunt tool. It involves building a proper platform (striking point) by chipping and abrading (grinding) an edge. Proper chipping isolates and sets the angle of the platform. Grinding removes weak areas that would dissipate the striking energy and prevent the fracture from propagating through the rock. A piece of chert that has been thinned and roughly shaped to the desired size is termed a preform. Flakes tend to follow ridge lines, so platforms usually are prepared where ridge lines intersect the edge of the material. Platforms must be prepared below the center of the rock mass for proper flake removal.

Failed fractures commonly occur as hinge fractures (flake energy propagates out of the material on the side the flake is taken from), step fractures (flake energy is insufficient for the amount of mass to be removed, and flake terminates abruptly), and plunge fractures (flake energy propagates into the material and exits the opposite side from the side the flake is taken from).

Percussion flaking tools are usually rounded and heavy. The proper weight and degree of softness are important considerations in choosing a tool. Weight will determine force applied to the stone and amount of mass that can be removed. Softness will determine the ability of the tool to grab onto the stone and tear off a flake. Hammerstones (rounded hard stones) and large antlers were traditionally used to strike a prepared platform and remove flakes. The modern knapper is more likely to use a copper billet (solid copper rod or flat plate, or rounded copper cap mounted on a wood or metal handle). The modern tools are used because they are cheap, easily obtained, and long lasting.

Pressure flaking is used to remove small masses of material in a more controlled manner by applying a steady pressure with a pointed tool. Preparation for pressure flaking also involves making a platform at the correct angle and abrading the platform surface. Abrading keeps the edge structurally stable as the pressure is applied and also serves to keep the tool from sliding off the platform before the flake is released.

Pressure flaking tools are long and pointed. The tool must have the proper tip size and degree of softness. Hand-held flaking tools were traditionally made from small antler tines, possibly mounted in a wood handle. Copper rods are now commonly used because they are convenient and can be easily reshaped by filing as they wear down. A specialized flaking tool (called an Ishi stick) is about 45 cm long. It is held against body to provide much more leverage. Most of the force required to pressure flake is provided by squeezing the legs together, not directly by the hand or arm. Shearing tools (a flat rib bone or piece of copper) are often used to trim and square up rough edges in preparation for pressure flaking.



Minor (and sometimes more serious) cuts to the hands are a fairly common hazard among flint knappers, especially when using the more glass-like materials such as obsidian. A more assiduous and long-term affliction can come from flint knapping in closed spaces. Small clouds of razor sharp silica fragments, produced when the rock edges are abraded, can enter the lungs and cause scarring of the lung tissues. This can eventually lead to a type of lung cancer called silicosis.

Contributed by Jodie



*F. salicifolia in situ* according

Figs and fig leaves have featured in many religious texts and have been referenced in art throughout the centuries. They are truly fascinating and although there are hundreds of species of figs worldwide, there are 2 species commonly found 'in the wild' in the UAE – *Ficus johannis* Boiss. subsp. *johannis* and *Ficus cordata* Thunb. subsp. *salicifolia* (Vahl) C.C.Berg (although *F. salicifolia* (Vahl) is regarded in some of the literature as a separate species rather than a subspecies<sup>1</sup>).

In essence, the fig is not really the fruit, rather an inflorescence or more specifically a syconium (or receptacle) for the development and pollination of the flowers which are hidden inside it. These flowers are either male, female short style or female long style. Roughly half of fig species are monoecious (having the male and female flowers on the same plant) and the other half are gynodioecious (functionally dioecious - having separate male and female trees).

So, how does a flower that is hidden get pollinated? That's the fascinating bit – and is the result of pollination mutualism between figs and fig wasps (family Agaonidae) which dates back, to some sources, some 60 million years<sup>2</sup>.



*Inside of F. salicifolia*

The monoecious cycle goes something like this – the female fig wasp makes her way into the fig through the ostiole (or opening) at the end of the fig. It's a bit of a tight fit and she usually loses her antennae and wings in the process. Inside the fig, the still immature male flowers are located around the ostiole, so the fig wasp makes her way through the fig and uses her ovipositor to deposit eggs inside the female short and long style flowers which are situated in the middle and towards the back. Her ovipositor is not long enough to reach the ovary inside the long style female flower, but she usually still gives it a shot, thus pollinating these flowers with the pollen she brought in with her and they then set seed. After she has finished laying her eggs she promptly dies and is consumed by enzymes within the fig.

The eggs hatch and the larvae develop. The male is first cab off the rank - much smaller than the female, wingless and with very small eyes (but considering his role in this little scenario he's not going to need any of these things) - and begins immediately impregnating as many females as possible. Job done, he then sets about chewing his way out of the fig, producing a hole which enables the larger winged females to escape the fig. Needless to say, a wingless, virtually blind male doesn't last too long on the outside and is quickly dispensed with. The pregnant female makes her way out, collecting pollen from the now mature male flowers and then flies off to find a fig in which to lay her eggs and begin the cycle all over again.



*Leaves of F. salicifolia*

The seeds of a fig are also special in that they have to pass through the digestive tract of either a mammal or bird in order for the seed coating to be softened and for the seed to then germinate.



*Figs on F. salicifolia*

<sup>1</sup> See [http://www.figweb.org/Research/Laboratories/van\\_Noort/pdfs/van\\_Noort\\_van\\_Harten\\_Fig\\_wasps\\_Yemen\\_FOA\\_22.pdf](http://www.figweb.org/Research/Laboratories/van_Noort/pdfs/van_Noort_van_Harten_Fig_wasps_Yemen_FOA_22.pdf) p. 460

<sup>2</sup> See <http://geo.cbs.umn.edu/RonstedEtAl2008a.pdf>

In the UAE *Ficus salicifolia* is known as a wadi fig and is commonly found in wadis and has lance shaped leaves and small figs, approximately 1cm in diameter which appear between May and December. This is a drought resistant fig and according to Marijcke “[e]ating unripe fruit straight from the tree is reported to cause fits and tremors be in both people and livestock.”<sup>3</sup>

*Ficus johannis*, or mountain fig has the more traditional ‘fig like’ leaves and has slightly larger fruit. It’s usually found above 500m and flowers between March and May.<sup>4</sup>

So next time you’re out in a wadi or up a mountain, have a closer look at this remarkable tree. And just in case you’re wondering...the crunchy black things in your fig are seeds, most edible fig species are from the female plant (with the long style flowers) so the fig wasp is unable to lay her eggs. Just one wasp then...

For more information see the following excellent website [www.figweb.org](http://www.figweb.org)

<sup>3</sup>Jongbloed, Marijcke. (2003)Wildflowers of the United Arab Emirates. Environmental Research and Wildlife Development Agency; Abu Dhabi. p434

<sup>4</sup>See Jongbloed, Marijcke. (2003)Wildflowers of the United Arab Emirates. Environmental Research and Wildlife Development Agency; Abu Dhabi. p435

Dates for your diary	Links
June 2009 09 General meeting 23 General meeting  July 2009 14 General meeting 28 General meeting	<p><b>Dragonflies!!!!</b>  <a href="#">IUCN Odonata Specialist Group</a></p> <p><b>Wildlife Middle East News:</b>  <a href="http://www.wmenews.com">www.wmenews.com</a>&gt;.</p> <p><b>Desert oasis:</b>  <a href="http://www.environmentalgraffiti.com/featured/desert-oasis/2257">http://www.environmentalgraffiti.com/featured/desert-oasis/2257</a></p> <p><b>Mike Gillett’s contribution to our website</b>  <a href="http://www.enhg.org/alain/mike/contrib.htm">http://www.enhg.org/alain/mike/contrib.htm</a> &gt;.</p> <p><b>Wildlife Middle East News Vol 3 Issue 4 March 2009</b>            PDFs can be downloaded from:  <a href="http://www.wmenews.com">www.wmenews.com</a></p>

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## FREQUENT REMINDERS

### Hikes

We will continue with weekend hikes and walks at nearby destinations, either in Oman or in the Emirates.

**Hint:** Please read these hike-related mails carefully in order to be well prepared for the hikes (equipment, shoes, severity, etc.) also to get the right time and place to meet.

### Thuraya Satellite Phones

We have 2 Thuraya telephones. The numbers are **0088-216-2150- 2400** for Phone One and **0088-216-5552-1121** for Phone Two. We recommend that you add these numbers to your mobile phones and lists of important phone numbers. One or both phones will be taken on each field trip and will be turned on for the duration of each trip.

### Find your way and meeting places in Al Ain and around.

#### Waypoints.kmz

There are some members who are still unsure about some of the meeting places we routinely use to assemble for field trips and meetings. We described the procedure in previous newsletters and it can also be seen on the webpage.

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