

# TAYF

## *the Soqatra Newsletter*

Issued By **FRIENDS OF SOQOTRA**



***Rural Health  
Service for  
Soqatra  
Page 3***



***Soqotran  
Vulture  
Page 7***



***Coral Mining  
Threatens  
Marine  
Habitats  
Page 10***



***Tree Planting  
Helps Stop  
Erosion  
Page 12***



***Arachnids of  
Soqatra  
Page 16***



***New Way to  
Age Dracaena  
Trees  
Page 19***



**NOT For Sale  
but  
DO Photocopy!**

*Tayf* Newsletter is produced for members of Friends of Soqatra and is distributed free to them. Neither current nor back issues should be sold.

People are welcome to photocopy the journal for their personal use or to give to others.

# NEWS

## Island News

Muhammad Amer,  
FOS Representative

It has been a dry year on Soqotra. The winter rains were very weak except in some parts of the north. This had an adverse effect on the islanders.

Like other areas of Yemen in the past year, Soqotra has been affected by political and economic upheavals which are likely to seriously affect the future of the island. Many different views have been expressed on this matter: some would like the island to become a Governorate of Yemen (*Muhaafadha*) in its own right; some think it should become a self-administering region (*Wikaala*); others that it should become a Province within some sort of confederation (*Iqleem*) within Yemen; while yet others believe that it should become part of a separate country, Southern Yemen.

All this has had an effect on prices, and especially on imported foodstuffs and fuels, which has made life for the islanders harder.

These disturbances also had a severe effect on the budget of the local branch of the Environmental Protection Agency, especially since the international agencies that formerly funded the projects have withdrawn from the island. This has meant that many environmental projects have been unable to continue their work over the last few years, among them the turtle protection programme.

**Mohammed Amer Ahmed**  
**The Director of EPA on the Island**  
**FOS Representative**  
**Mohammed7amer@yahoo.com**

## Tourism Numbers Declining

It is reported that tourism numbers on the island have fallen in recent months, with only some 240 tourists from October to December 2011.

## Tayf in Arabic – 500 copies for Soqotra

In 2011 FoS Committee member Salwa Barkwan introduced us to Omar Hamdoon of al-Mukalla. He has been kind enough to arrange for the printing of arabic Tayf in al-Mukalla, and then, in liaison with FoS representative on Soqotra, Muhammad Amer Ahmad di-min Selmehon, for sending it by air to Soqotra. The parcel of copies of the Newsletter is met by Muhammad Amer at Soqotra Airport, and he then arranges for its distribution around Soqotra.

Before 2011 the FoS Committee had been very disappointed at how few Newsletters ever reached Soqotra, despite the numbers of copies reaching San'a, so they were delighted to see this new method working so well.

Our thanks go to Salwa Barkwan in Wales, Omar Hamdoon in al-Mukalla and Muhammad Amer on Soqotra for making it possible for so many islanders to receive the Fos Newsletter. We very much hope that this will encourage more islanders to send us material for publication, either delivering it to Muhammad Amer or by e-mailing it to Miranda Morris, at [miranda@mirandamorris.com](mailto:miranda@mirandamorris.com).

## Soqotra in times of political uncertainty

Dana Pietsch

In spring 2011 immense changes came over the Arab world, changes which lead to increasing political uncertainty and to a breakdown of development projects already going ahead with huge financial deficits. Scientists and FOS members like me, who are shocked about the situation, and who have worked in Yemen and on Soqotra Island for a long time are asking themselves: How does the current political situation in Yemen, with ongoing poverty, and limited central or regional government, affect conservation efforts and resource management, both regarding biodiversity and natural resources in general? How can we help to keep things running?

Aside from the necessity of developmental projects and practical action such as plantings, I'm convinced that we scientists also can use our voice to show the world not only our results and the beauty and richness (for example) of Soqotra Island, but should also use our voice to talk about the background of our research. That means for me that it is a duty to keep an area which underwent so many changes within the last years, and especially within the last months, even more visible for the general public, e.g. in the form of public talks, articles or websites. As a FOS member I would like to encourage every scientist, but also every single inhabitant on the island to stay active and hopeful despite the current changes.

## Poster Donation

Many thanks to Ursula Eigel who generously donated £500 towards the production and distribution of a poster on Soqotora's natural heritage designed by Kay van Damme. The posters were also funded directly by Friends of Soqotra.

## C or Q?

*Spelling of the main island name in English is still controversial.*  
*Contributors to **Tayf** are welcome to*

## Soqotra joins 'Ham Radio' network

John Farrar

Although until recently Yemen did not support amateur radio operation, there is now a party of Russian and American radio operators (known as 'hams') operating from the Summerland Hotel in Hadiboh. Their website is <http://www.yemen2012.com/>. When I was on Socotra in 1964/65 I operated the first and only amateur radio station on the Island and since then all such activities have been banned.

# NEWS

## The RHSS Project: THE RURAL HEALTH SERVICE, SOQOTRA ISLAND 2012-2015

### Community-based Child and Reproductive Health Care, Soqotra Island, Yemen

The Friends of Soqotra are very happy to support this new project, the brainchild of Dr. Salem Yousef Muftah on his return from his very successful year of further study in the UK. The primary aim of the project is to improve the health of children and their mothers in the archipelago, and in particular to bring down the high incidence of infant mortality on Soqotra. Dr. Salem has clearly listed the aims in his project proposal:

By 2015

- To reduce newborn mortality to 65/1000
- To raise the delivery of pregnant women by skilled birth attendants from the current 17% to 45% (The Mother and Child Health programme in Soqotra, established in the 1970s has reached 17%, so to raise this to 45% over the next three years would be an excellent result).

This will be achieved by a series of Mobile Clinics which will visit different areas of the island, staying in each area for five days. This is a very important component of the project, because, although there have been occasional visits by Ministry of Health staff to the more outlying areas, these have always been very brief and have been involved in treating patients on an *ad hoc* basis only. Two or three such field visits will be made each month. The Mobile Clinic Team will also visit the islands of Samha and Abd al Kuri. The Mobile Clinic will be staffed by Soqotri Ministry of Health staff and headed by a Soqotri doctor. A trained primary health educator will also be part of the team. All Mobile Clinic staff will be paid a modest *per diem* allowance for the days they spend in the field. The Mobile Clinic Team will concentrate on children and mothers, but they will also carry a limited amount of drugs to treat other patients.

However, the primary aim of the field visits is **education** and **training**. The local health worker in the peripheral health units will join the Mobile Clinic Team when they are working in his/her area for practical training. The Educator will work with people in each area visited, and will hold two sessions in each place: one for school age children (in the morning) and one for older members of the community (in the evening). In the second year of the project, it is planned to provide a training course for some 20 midwives who will then continue the work of the project in the new hospital and also in the field.

Friends of Soqotra are supporting Year 1 of the project and it is hoped that their contributions will cover fuel costs, *per diems* and other field costs, as well as some training for local health workers. The project will be re-evaluated by Dr. Salem Yousef at the end of the first year and the proposal modified where necessary. Dr. Salem is approaching other donors and we wish him every success in this. However, we very much hope that Friends of Soqotra can continue to support this vital project. Dr. Salem has prepared a properly costed fund-raising proposal. If anyone wants to know more about the project or to see the full proposal, they can contact Dr. Salem Yousef Muftah (below). Finally, we wish Dr. Musallim Al-Da'arhi, General Director of the Soqotra Health Office, all the best in his new post, and hope he will also support this very important project – a first for Soqotra: a Soqotri project, planned and executed entirely by Soqotrans.

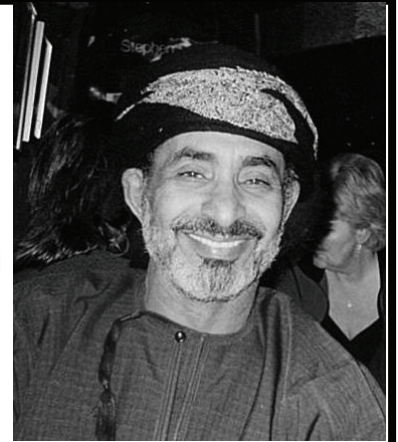


Dr. Salem Yousef-Muftah  
MBBS, MTropPaedes.  
Child and Reproductive Health Group  
Hadibo Hospital, Soqotra Island  
Mob: 00967 770343166  
Email: salem.yousef@yahoo.com

# NEWS

## **Ahmad bin Sa'ad Tahki al-Soqotri (1955-2011)** **Linguist and ethnographer**

**By Essam Khamis Thabit, FoS representative in Oman, with members of Ahmad's family**



Ahmad bin Sa'ad bin Khamis bin Hasan bin Hamad bin Sulaiman bin Hamad bin Sa'adan bin Sa'id Tahki al-Soqotri was born in 1955 in a small settlement in Homhil called Liyeh, and died in 2011 in Salalah, the Sultanate of Oman. From his earliest youth, like the majority of the islanders, he was raised in the Islamic faith; he studied the Qur'an and was taught basic reading and writing by his father. These teachings had a profound and lifelong effect on him.

Many other events in his life affected his intellectual and social development: he first left the island and travelled overseas as an adolescent, visiting many different areas and towns on the mainland. He spent four years in Sa'udi Arabia, reaching this country by way of south Yemen and southern Oman, where he called in on Sudh, then Fujairah in the Gulf, and finally Dubai from which he departed in a sailing boat to Sa'udi Arabia. Finding opportunities for earning his livelihood and furthering his education limited in Sa'udi Arabia, he made his way to the Sultanate of Oman, travelling via Najran and the Empty Quarter and reaching Muscat in 1971. He finally settled in Salalah in southern Oman, and lived there until his death following a prolonged battle with illness. On arriving in Oman and settling in Salalah, he was enrolled in the local militia, the Firqat Forces, whose job was to protect and defend the borders. He then found civilian work in one of the government ministries as by then he had become a full Omani citizen.

In one of his private papers Ahmad records his first meeting with Dr Miranda Morris, in 1989, and how that meeting influenced the rest of his life. He records that they discussed a possible trip together to Soqatra to pursue linguistic and ethnographic research, and he noted: "I didn't believe what the doctor said about going to Soqatra to pursue her linguistic researches, but I did indeed go." In 1991, Ahmad travelled to Soqatra with Dr Morris, and saw his home again for the first time since leaving it as a young man. From that time onwards Ahmad returned to the island every year, often with Dr Morris and other people carrying out research on the island. It was as a result of these visits, Ahmad wrote, that he came to appreciate the global importance of the island and the interest it held for international researchers with its unique language, society and biodiversity.

The late Ahmad Sa'ad played a major role in linguistic and ethnographic research on Soqatra, and left an indelible imprint which will never be forgotten. He worked alongside many European researchers to uncover the rich cultural heritage of the island, and played a leading part in exploring many of the island's caves and sites of archaeological interest, such as the caves of Samha, Qa'arah, and especially Hoq cave, about which Ahmad wrote in his notes, where he comments that in 1991 he, with Dr Miranda and some other researchers - among them Tony Edwards and Diccon Alexander- were the first people to penetrate deep into this historic cave.

He also played an important part in the major exhibition on Soqatra in Britain in 2006, which was organised by European researchers. He gave a speech in Soqotri at the opening ceremony, which was attended by senior officials, various European ambassadors and Yemeni VIPs, among them Dr Abdul Kareem al-Eriyani, the Special Adviser to the Yemeni president. Ahmad addressed the audience as a representative of the citizens of Soqatra at this exhibition. Ahmad also worked with those carrying out environmental research. This work began on the island in 1997, and included detailed study of the plants, insects and animals of the island.

It is also worth recording here that Ahmad was responsible for setting up *The Soqatra Folk Museum* on the island, which was formally opened on 10<sup>th</sup> January, 2008. It has displays demonstrating the traditional way of the life of the island with artefacts and handicrafts of wood, clay and leather. There are displays of weaving and of the silver jewellery worn by Soqotran women in earlier times. It should be noted that this type of silver jewellery can no longer be found on the island, and is preserved only in the display in this museum, in Hallah, eastern Soqatra. On the 15<sup>th</sup> March, 2009, the museum was visited by the former President of Republic of Yemen, Ali Abdullah Saleh. He examined all the exhibits illustrating the cultural heritage of Soqatra, and he wrote in the visitors book thanking those who had established the museum and collected the historic artefacts, and expressing his gratitude and respect for all the hard work that had gone into establishing such a museum.

There were also other matters and other deeds which Ahmad never spoke about publicly but kept to himself, both to protect them and in the hopes of obtaining recompense in the afterlife. We ask that all those who read of his life may pray for his soul and call on God to recompense him.

# NEWS

## A Poem about Heavy Rainfall

*In the morning rainclouds arrived from the west, and mists and cloud from the east.*

*Waves rose and broke out at sea - anyone who did not know how to swim would be drowned.*

*The storm arrived with repeated claps of thunder, and below and above became as one. (i.e. land and the sky merged together in the rain)*

*Today the people of Hēgeher saw the clouds, but the rainstorm turned around and went off towards the east.*

*Water rushed everywhere, time and time again, as it once used to: perhaps now the precious stock inherited from our forefathers will prosper.*

### Notes

- 'rainstorm': the form used is from the verb (rain) to fall. Different forms of this word refer to differing amounts of rainfall: rain (in general); *diminutive form*, light rains; *augmentative form*, heavy rains
- 'water rushed everywhere': the word used refers to water rushing down watercourses, flash flood(s)
- 'the precious stock inherited from our forefathers': the word refers to anything inherited from one's forebears, but especially livestock; such animals were always highly valued by their owners
- Hegeher, two mountain peaks in the west, one above Śya'ab and one above Niyt (not the central Hageher mountains)



December 2011 Rains  
Photos by Paul and  
Tineke Dodson

## Obituary—Dr Neil W. M. Orr

We are sorry to announce the death in March 2012 of former FoS member, Dr. Neil W. M. Orr. His medical training was at Cambridge and St. Thomas's Hospital, and shortly after, he and Dr. Richard Lister accompanied the 1956 Oxford University Expedition to Soqatra. On their return they presented a medical report on their visit and some years later, a paper on the blood groups of the islanders.

After his trip to Soqatra, he became the Medical Officer in the Antarctic (1958-61), where his main interests were the food requirements of men and dogs in that region. He was awarded the Polar Medal for his services. He was a fine watercolourist and a sketch he did in 1956 of Hadibo, against the backdrop of the Hageher range, was reproduced in the *Journal of the British-Yemeni Society* in 2004. That same year, some 48 years after the Oxford University expedition, Dr. Orr made a return trip to the Soqatra. He wrote about his trip for the 2004 British-Yemeni Society journal in an article entitled 'Soqatra Revisited'. He describes camping once more at Kishin in the Hageher mountains: "a truly magical moment", and being shown by Len Pearce a video of the film which Douglas Botting had made during the 1956 expedition, which must have been an interesting experience! He concluded that on Soqatra: "... though there was cause for concern, the magic still prevailed."

# PUBLICATIONS

## The Dīwān of Ḥājj Dākōn:

### A Collection of Mahri Poetry:

Introduction, Translation and Transliteration by Samuel Liebhaber  
(American Institute for Yemeni Studies, 2011 ISBN-10: 1-882-557-16-6)

This book, published this year, is of great relevance to Soqotrans. It has five sections:

In Part I [*The Diwan of Hajj Dakon: Literary and Cultural Analysis*], Liebhaber gives some biographical details of the poet, Hajj Dakon, and the story of his *Diwan*; he then goes on to discuss traditional and modern poetical forms - especially various types of *Qasidah* - orality and literacy, and the socio-cultural context of the Mahri Language. In this section he also analyses some of the poems in depth. Part II [*Key to the Arabic and Mahri Texts*] sets out a table for Arabic and Mahri transliteration, using both the Arabic and IPA (International Phonetic Alphabet) alphabets. Some of the difficulties encountered in transcribing poetry in Mahri are discussed. Part III [*The Diwan of Hajj Dakon: Translation and Transliteration*] presents the 18 poems of the collection transcribed in IPA and translated into English by Liebhaber, with detailed linguistic footnotes. Part IV [*The Diwan of Hajj Dakon: Mahri and Arabic Texts*] presents the same poems transcribed and translated into Arabic by Hajj Dakon. The transcribed poems and their translation are presented on facing pages for ease of referral. Part V [*The Diwan of Hajj Dakon: The Autograph*] presents the poems in Mahri in Hajj Dakon's own handwriting. The book ends with a bibliography.

The poet, Hajj Dakon, was born in 1968 in Qishn and now lives near al-Ghaydha. He is al-Ghaydha's best-known semi-professional poet, his work being principally distributed through tape-cassettes. He has been working hard for some time to bring the Mahri language and its oral traditions to the attention of the wider world: his repertoire consists of "stories, lullabies, tribal histories, anecdotes, medical therapies, riddles and proverbs" as well as poems. In his desire to see his poetry reaching out to an Arab readership, in this collection he is for the first time experimenting with forms more akin to Arabic lyric poetry rather than the traditional genres and idiom of Mahri poetry.

The collection of eighteen Qasidah poems in Mahri, a non-literate language, is a unique and impressive achievement in that it is a *written* work. As Liebhaber writes (p.10) "There is no precedent for complete written texts in the Mahri language. There is no locally agreed-upon means to represent the unique sounds of the Mahri language nor is there a single dialect of Mahri that all Mahri speakers agree ought to form the basis for a standard written idiom." Hajj Dakon composes and writes in his own dialect, that of Qishn, but the simplicity of his transcription system, a slightly modified form of the Arabic script, means that his written poetry is readily accessible to a broad Mahri readership. However, as Liebhaber points out (footnote 12, p. 11) "Hajj's Mahri script requires prior knowledge of the Mahri language in order to be accurately enunciated", a problem which also faces Soqotrans keen to widen the audience for their poetry.

Altogether the discussions in the book and the method of presenting what is basically an oral 'literature' will be of great interest to Soqotrans who are looking for ways of giving their poetry a more lasting, written form. Dr. Liebhaber is to be congratulated on undertaking such a gruelling and demanding task and yet managing to present the results in such a transparent and easy to read format.

Note: Audio recordings of Hajj singing and reciting these poems will be available online by August 2012 (Mahri Poetic Archive: Special Collections, the Davis Family Library of Middlebury College, USA)

### A Poem about the Mosquito

***They were nearly the death of him, that nightmare that came upon him in Shibeyreh.  
The night-time guests (i.e. the mosquitoes) didn't give him a wink of sleep with their endless chatter.  
The (lowing of the) big-bellied cow doesn't do this to him (i.e. keep him awake all night), nor the (braying of the) old grey tottery donkey.  
God rid us of those biting insects at night in the plains of Di-Rimedeh!  
May God bury you deep underground and stamp down on you hard so that you no longer go around looking (for us and our livestock)!***

#### Notes

- Shibeyreh, ridge of plateau overlooking the sea
- 'the big-bellied cow': the form used means literally 'with a belly rounded like a pumpkin'
- 'tottery': the word used describes an animal which is so weak it can hardly get to its feet
- Di-Rimedeh, in the plateau area above Di-Hamdh

# PUBLICATIONS

## The Egyptian Vulture *Neophron percnopterus* on Socotra, Yemen: population, ecology, conservation and ethno-ornithology

RF PORTER & AHMED SAEED SULEIMAN  
Extracted from *Sandgrouse* 34 (2012):44-62

The resident Egyptian Vultures *Neophron percnopterus* are widespread, rather tame and in places the most obvious birds on the island of Socotra. As soon as you arrive at the small airport Egyptian Vultures are there to greet you and by the time you have driven the 12 km to the capital Hadibu you may have seen over 50. It breeds on the limestone cliffs and is a familiar bird in and around the towns of Hadibu and Qalansiya as well as the island's numerous villages at all altitudes.

The vultures are often tame—and if food is offered they will venture to within a few metres: a picnic will soon produce a gathering awaiting the leftovers of e.g. a tasty goat. The Socotri are benign to the vulture and this together with a rapidly increasing human population, little in the way of garbage control and nesting sites aplenty in the limestone hills, has doubtless helped to maintain a large population of a species that elsewhere in the world is seriously declining. Thus in 2007, as a result of prolonged and catastrophic declines in Europe, India and Africa (Cuthbert et al 2006), this long-lived species was given the status of Globally Endangered (BirdLife International 2011).

There are no other vulture species on Socotra and the only four other birds of prey breeding on Socotra. Assessing the population of a highly mobile species is not easy, especially on a large island where travel is very difficult to the many remote areas. Thus several methods were employed to help build up a picture and a population estimate. The current estimate puts the world population of Egyptian Vultures at 21,400–67,200 individuals (BirdLife International 2011) with 10,500–16,800 individuals in Europe and 2,500 individuals in the Middle East. Thus the Socotra population of c1,900 individuals (c800 pairs) represents c3–9% of the global population and over 45% of that in Arabia (including Socotra). Clearly Socotra is of international importance for the conservation of this vulture, more so because the population appears to be healthy, whereas all others throughout its range are in serious, even catastrophic, decline.

The Egyptian Vulture has been common on Socotra at least since ornithologists first visited the island over 100 years ago. Over the last few decades, Egyptian Vulture populations have been seriously declining worldwide as a consequence of poisoning, human disturbance or the reduction in food availability (Cuthbert et al 2006). None of these are a problem on Socotra and that is probably the clue to the vultures' healthy population. There is no persecution or disturbance of vultures, no evidence of direct poisoning, and no persistent pesticides are used in farming practices. There is a ready supply of food thrown out by households as well as carcasses from feasts. Socotra has no dogs, which might compete for food, and the only other predator or scavenger (apart from the domestic cat which is sometimes found living ferally) are the introduced Lesser Indian Civets, which are nocturnal.

Here is a literal translation of a text recorded by a Socotri from the eastern highlands, the late Ahmad Sa'ad Tahki, for Miranda Morris: "The vulture here on Socotra: we teach our children never to harm them, never to kill them and never to play around with them. They are a great help to us and we like them. If anything has died, or if something has given birth to dead young, the vultures clear this up for us. They clear up excreta from both humans and animals. They remove anything unpleasant from us so that there is never an unpleasant smell. The dung of the vulture is used as medicine to rub on sores in children. We are fond of them and we protect and look after them. We feel no dislike of them and would never harm them. It is thanks to them that the island has such a sweet smell and is so clean. If you see vultures circling in the air anywhere, in a valley, over a rock, above a pit, you know that there is something there for them to work on.

"Like cats and some reptiles, a vulture can also be the familiar of a witch, or can be the witch herself in disguise, come to spy on us and cause harm. This is another reason that these creatures are not harmed, since to harm them might arouse the anger of a witch and cause her to seek revenge. Those who have a 'spirit' or 'special powers' of their own are always able to tell when one of these creatures (ie vulture, wild cat, reptile) is involved in sorcery."



# CONFERENCES

## **BYS-LMEI Conference on Yemen 16 and 17 November 2012 – Call for Papers**

*The British Yemeni Society (BYS) in collaboration with the London Middle East Institute (LMEI) at SOAS proposes to hold an international conference entitled*

**“Yemen: Challenges for the Future”**  
**SOAS, University of London**  
**11 & 12 January 2013**

This will be the first academic conference in the UK for at least a decade to discuss in depth the many economic and social challenges facing Yemen. It is hoped that the conference will increase understanding of these challenges by presenting recent academic research on a wide range of relevant issues.

The conference will comprise eight panels of three or four persons who will present summaries of their papers and invite discussion. Presentations will be a maximum of 20 minutes, with 10 minutes for discussion. It is also hoped to invite one or more keynote speakers.

The BYS and LMEI invite scholars to propose papers along the following broad themes:

- Water and natural resources management
- Population, education and employment
- Economic Development
- Lessons from Yemeni history
- State and society
- Yemen, the region and the world.

The BYS will also consider suggestions for other panels with up to four participants.

Abstracts will be distributed to conference participants. If sufficient funds can be raised, the BYS and LMEI hope to publish a book of selected papers by the end of 2013.

For further information please contact Louise Hosking at [lh2@soas.ac.uk](mailto:lh2@soas.ac.uk) or Thanos Petouris at [agpetouris@soas.ac.uk](mailto:agpetouris@soas.ac.uk)

## **Friends of Soqotra Conference 2012 and 11th Annual General Meeting** **21—23 September 2012** **Senckenberg Research Institute and Natural History Museum, Frankfurt a.m., Germany**

The eleventh Conference and AGM will be hosted by Uwe Zajonz of the Biodiversity and Climate Research Centre. There will be workshops on the 21st, a general plenary meeting on the 22nd and the AGM (open to the public) on the 23rd. The Workshop will explore the interface between basic and applied research and development interventions. Registration and abstract submission may be done online through [www.bik-f.de/SoqotraSymposium2012](http://www.bik-f.de/SoqotraSymposium2012). Deadline for abstract submissions is 1 September. A draft programme will be available in early August.



**FoS Conference 2011**, held in Bern, Switzerland 23—25 September. It was organised by Dr Eike Neubert, Curator of Malacology at the Natural History Museum of Burgergemeinde in Bern. There was a full programme of presentations and discussions and abstracts from most presentations are provided in this issue of *Tayf*. A great time was had by all!





## Drama of the Palaeolithic Age

Tatyana Zavyalova

In 2011 a Russian expedition, now the only international group of historians and archaeologists working in Yemen, has made a number of interesting finds on the island of Socotra. Socotra is rich in stone tablets of the Palaeolithic period. These tablets are a secret treasure of this small archipelago in the Indian Ocean. When two years ago scientists found hand tools, which went back to the stone age, they wondered how people emerged on the island.

*Homo sapiens* did not exist at that time. It was his predecessor *Homo habilis* who lived then. This biological type had just learnt how to stand straight and how to cut and slice stones for hunting. It is unlikely that *Homo habilis* could have been a seafarer. In an interview with the "Voice Of Russia", the professor of the Moscow State University, a well-known geographer Andrei Lukashov, who is taking part in the archaeological expedition on Socotra, gave the following explanation: "Two million to two and a half million years ago, Socotra and the whole archipelago was the tail of what is now called the Somali peninsula. Where the Gulf of Aden now is there had been a deep tectonic trough between the Somali and the Arabian coasts for 15 million years. Such structures are well-known in geology and are called rifts: for example, the Baikal rift in Siberia, the Rhine Graben in Western Europe. One such deep rift divided Arabia from the East of Africa. The mountain forming process intensified one and a half million years ago. This is how the Caucasian Mountain Range, South American Andes and the Himalayas were formed. Tectonic structures including the Aden rift reacted to that intensification. Gradually the rift was formed on the bottom of the Ocean which finally divided the Socotra archipelago from the African continent. The territories with savannah fauna where the predators, plant-eating animals, and early hominids (human foregoers) lived, were cut off from the continent."

"Humans were isolated from Africa" Professor Lukashov continued "but this was only half of the problem. The animal populations lost connection with the continent. Of course, predators ate plant-eating animals and died out. The humans who could not hunt zebras and antelopes back then ate what remained. When they ran out of food, it was a real drama for them."

"The Russian expedition on Socotra has found enough finds which confirm this sad scenario," Lukashov says. The archaeologists found traces of the Stone Age culture on the island but no signs of later cultures. At the same time the tools of labour found on the coast of the Gulf of Aden belong to the Stone Age and also to later periods.

What is also quite interesting is that there are almost no big animals on the island; there are almost no mammals except bats and shrew mice. The island had its unique flora which includes the Dragon Tree, a rare tree which now grows primarily on the Canary Islands and Socotra. According to Lukashov, the Dragon tree forests covered huge territories in ancient times which stretched up to the current Russian borders.

"Socotra's unique flora comprises desert savannah on lowlands and forests of dragon trees, incense trees and bottle trees in the mountains. It is great that this exclusive flora was put on the list of the World Natural Heritage," Lukashov notes. The expedition of the Russian archaeologists on Socotra continues. The scientists plan to explore the caves of the island, which may also preserve some signs of the Palaeolithic age.



## Fatal crash on 24 August 1944 at Ras Karma airfield

John Farrar

A Wellington bomber, with five Canadian Air Force crew took off for an anti-submarine patrol. The aircraft had completed a 9 hour flight earlier in the day with no signs of trouble. However, just after take-off at 19:17 hours, one of the two engines was heard to be 'running away'. The aircraft climbed to 100 feet and the pilot tried to make a turn back to the airfield. With insufficient height and loss of power, with only one engine working, the aircraft hit a small hill about 150 feet high, killing all on board.

The bodies were later exhumed and re-buried in Maala Cemetery, Aden. I cannot help thinking of the parents and families of these young men when they heard the tragic news. They were killed on an island they had probably never heard of, 1000s of miles from Canada. In 1965, I was detailed to try to find the grave site and photograph it but was unsuccessful.



The ceremony at the grave site on 28 August, 1944.

# LIFE ON THE ISLAND

## Coral Mining on Soqotra Little profit for a few and a lot of damage for many

**Uwe Zajonz<sup>1</sup>, Rebecca Klaus<sup>1</sup>, Malek Abdul-Assiz<sup>2</sup>, Fouad N. Saeed<sup>3</sup>**

<sup>1</sup> Biodiversität und Klima Forschungszentrum Frankfurt am Main (BiK-F); <sup>2</sup> Socotra Conservation and Development Coordination Unit; <sup>3</sup> Environment Protection Authority, Socotra, Marine Unit

Around Soqotra, large lumps of coral, dislodged by natural forces, tend to be found washed up along beaches in many areas. Traditionally these coral 'cobbles', often worn smooth by overturning, were collected by locals episodically around Soqotra for use as local building blocks and for making lime. The scale of these activities was small and corals were never actively mined but passively collected and they were not sold.

Addressing negative experiences in other parts of the world the collection of living or dead corals was locally prohibited by the Presidential Decree "Soqotra Zoning Plan" No. 275 of 2000. Following the opening up of the Archipelago, however, certain attempts to export corals occurred in 2004-2005. They were countered by the island authorities and, ultimately, a ministerial decree was issued in 2006 prohibiting any form of coral mining and coral exportation.

Since that date no more coral has been collected or exported until last year when attempts to illegally export coral stones by traders from inside and outside Soqotra resumed. Ironically, these activities are apparently instigated thru demand created by architectural restoration programs in the United Arab Emirates. Recently this year, vessels under Indian flag were observed as being charged with several hundred tones of coral blocks at several beach fronts of Soqotra Island, notably in the areas of Qadama (Fig. 1) and DiTimri-Roosh-Halleh (Fig. 2). The coral blocks loaded originate in part from the remains of earlier beach harvest (when their export was interdicted) and recent active shore mining activities (Fig. 3). The departure of the vessels could unfortunately not be stopped and they ultimately steamed off to the U.A.E. Both areas, from where the corals originate fall within designated UNESCO World Heritage marine core zones, as indicated in the Zoning Plan. They are characterized by highly diverse coral communities hosting over 60 species of corals, the highest species richness found around the whole of Soqotra.

The harvesting of corals, whether live or dead, can result in the disturbance and loss of both intertidal and subtidal habitats and their associated ecosystem services. Damage to the structurally complex habitats created by corals threatens a multitude of other marine species that depend either directly or indirectly upon these critical habitats. As well as the direct loss of biodiversity, this can also result in shifts in community composition and loss of ecological functions. This is of particular concern on Soqotra, which typically supports small unique patch reefs that are particularly valuable in terms of the ecosystem services they provide at the local level, notably to the local fishery. These structures also provide the first line of coastal defense as they lessen the amplitude of incoming waves before they reach the shore, helping to prevent coastal flooding and seawater intrusion. Loss of these subtidal habitats can increase shoreline vulnerability, and cause shifts in sediment transport patterns, resulting in coastal erosion. Direct removal of intertidal beach materials also disrupts the stability of the coastline and increases the likelihood of coastal erosion as well as harms the visual integrity and scenic beauty of the shores. Damage to the intertidal habitats near Qadama is a particular concern because the beaches are the most important marine turtle nesting site in the whole Archipelago.

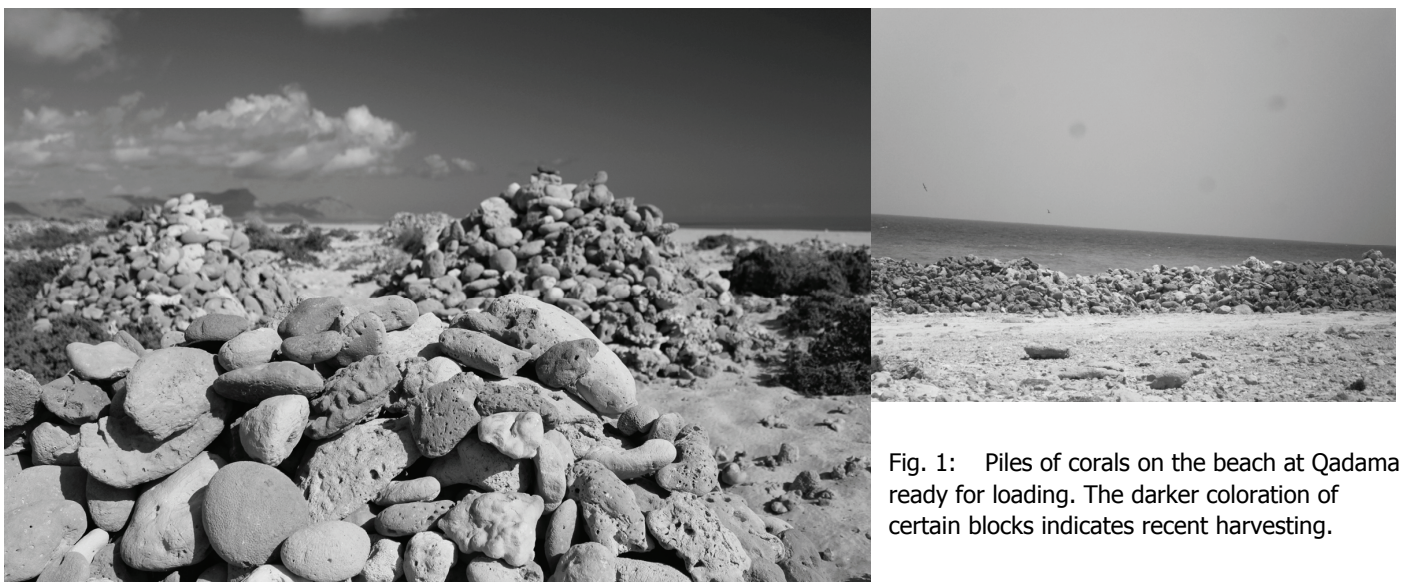


Fig. 1: Piles of corals on the beach at Qadama ready for loading. The darker coloration of certain blocks indicates recent harvesting.

# LIFE ON THE ISLAND

Efforts by the local authorities are ongoing to prevent collection and exportation but the capacities are currently too limited to fully enforce the existing legislation and ensure compliance with the conservation and zoning regulations along the vast coastal stretches of the island group.

The present coral exporting activities, without control, may set an example with the potential to further incentivize persons involved to upscale their activities from beach collecting of dead corals even into mining of live corals at sea. Thus, coral mining could spread across the islands exacerbating its harmful consequences. The trade-off between the little income a few locals would derive today and the irreversible damage to the integrity of the environment of many coastal communities (notably to reefs and fishing grounds, shorelines, and turtle nesting sites and fish nurseries) is disproportionately out of balance. In addition, this export is mainly for profit of the traders, not of the local communities. If collecting is continued or even scaled up to live coral mining the island's future potential is at stake, not least with a view towards alternative sustainable income generation such as in fisheries and nature-based tourism. It is therefore strongly believed that it is to the benefit of the people of Soqatra if these harmful commercial activities are stopped immediately and for good.



Fig. 2 (above): Indian dhows at anchorage in front of Roosh Marine Protected Area waiting to charge coral.  
*Photo by B. Rambousková*



Fig. 3 (left): Locals involved in transporting the vast amounts of corals piled up on the beach to the vessels.

# LIFE ON THE ISLAND

## Twelve years of native-tree planting on Soqatra

Hana Habrova, Mendel University in Brno

The number of trees on Soqatra has decreased rapidly in recent decades and there is almost no natural regeneration mainly because of grazing pressure by goats on the island. This is the reason why plantings are so important to save native species on Soqatra.

In 2000 a group of foresters from Mendel University in Brno started cultivating native trees. Within the Czech Development Assistance projects, three equipped and fully functioning tree nurseries were supported in the Shilhinithin (N coast), Qa'arah (S coast) and Zemhom (central part) localities and native multifunctional trees started to be planted into home gardens. By 2004 60 families in 20 villages were participating. Preliminary results showed that tree growth is surprisingly rapid, for example one-year-old irrigated *Commiphora ornifolia* reach approximately 1.6 metres and two-year-old *Ziziphus spina-christi* reach 3 metres.

In 2006 an excellent opportunity to reforest 1 ha of land belonging to Shibehon village arose, and within a trilateral Czech-Canadian-Yemeni project, the biggest fenced and first recently artificially forested area on the island was constructed. About 700 2-4 year-old seedlings of *Dracaena cinnabari* and 50 seedlings of other species were planted into the fenced area. In March 2012 the old fence was replaced, and after 6 years more than 600 trees are still alive (seedlings are occasionally irrigated).

In 2007 a group of local people planted 100 trees of *Dracaena cinnabari* with individual protection in wadi Zeriq. In August 2009 only 15 live trees were found.

During the project's activities in 2009-2011 we have continued with plantings. Based on the results, we should choose other methods of tree protection than individual, e.g. on Quareh, the most efficient seems to be fencing of groups of trees (20-100 m<sup>2</sup>). In January 2011 a fenced area of 0.25 ha was established next to Noh Sail's nursery. Some 150 seedlings and young trees were replanted from the nursery, and after one year, nearly all trees are still alive. Surprisingly, older trees (some of them up to 10 years old) have survived better than young seedlings as local people (in spite of restrictions) let goats enter into the fenced area. One of the recommendations for future plantings is thus using older trees which are tall enough to be out of the reach of animals.



One-years-old seedlings of *Commiphora ornifolia* (from seeds) replanted to fenced open space in 2006



The same trees in September 2009

# RESEARCH

*The following are abstracts of papers delivered at the FOS Annual Conference in September 2011 in Bern.*

---

## **Perception of islands in visual media - Socotra through a photographer's eyes.**

**Claudius Schulze**

**Private Photographer, Istanbul. Email: [claudius@claudius schulze.com](mailto:claudius@claudius schulze.com)**

Islands – strange and magical – have for centuries driven Europeans to explore and to discover. Islands have never been just “a piece of land surrounded by water” (Oxford Dictionary). Rather, the word island was always loaded with notions of how these places look and the myths tied around them. Men were driven to islands by imagination and curiosity and now we are attracted to them just as much. We have come to see islands through the prism offered by the accounts, genuine or fictionalized, of adventurers and seafarers who went out to search, conquer, and colonize.

In this presentation, an excerpt from the essay in my new books 'Socotra (a tale narrated in words and 46 photographs)', I would like to take you on a visual journey to Socotra through the eyes of a photographer. Exploration through a visitor's eyes, to a place that is overgrown with otherworldly plants and fascinating people. While the book actually documents the isle Socotra, it is about more than the obvious. It raises questions about the history of adventure and exploration from the Age of Discovery and the Industrial Revolution to now, the cultural tradition, the myths and clichés tied in our minds to the idea of island and what historically shaped our perception and how trends in photography have been a strong influence in the last century.

---

## **Code language in Soqotran poetry**

**Miranda Morris**

**Email: [Miranda@mirandamorris.co.uk](mailto:Miranda@mirandamorris.co.uk)**

Much Soqotri poetry was composed using 'code language': that is, words or phrases with more than one meaning, the true intention of the poet only being intelligible to those in the know, those who share some secret knowledge with the poet, or those of superior intellect and understanding. This ability to use and understand 'code language' divides 'real' poets from everyday versifiers, and traditionally the genuine poet was regarded as someone with unusual insight, who was in touch with other worlds and other truths not available to the ordinary person. To a certain extent this meant that poets formed a group apart within the wider Soqotra community with its own language and its own rules, and ordinary people were only admitted when the poets chose to interpret their poems to them. It is on these grounds that older people criticise most modern poetry: whereas 'good' poetry is, by definition, hard to understand, most modern poetry can be understood by anyone.

---

## **The GIZ Biodiversity Project in Yemen (with emphasis on Socotra)**

**Katja Setzkorn and Henning Baur**

**German International Cooperation - GIZ (Gesellschaft für Internationale Zusammenarbeit). Email: [katja.setzkorn@web.de](mailto:katja.setzkorn@web.de); [henning.baur@giz.de](mailto:henning.baur@giz.de)**

Based on wide-spread poverty and a rapid population growth, the pressure on natural resources in Yemen is increasing and accelerates the long term degradation of means of livelihoods, especially for the rural population. Although a set of strategies have been developed, policies and programs in the field of biodiversity, supported by the international community (and in this Yemen now meets international standards), the implementation is still limited. The reasons are diverse: frequently insufficient political commitment, inadequate technical skills of employees of the environmental authorities and frequent lack of incentives for the implementation of such measures, all of which are essential. In addition, there are only a few good existing examples to prove the importance of biodiversity conservation for economic development and to demonstrate the effectiveness of sustainable resource management.

The GIZ-project therefore aims to support sustainable use of natural resources to contribute to local economic development and further the conservation of biodiversity in Yemen. Socotra Island is a pilot area for the project and a current regional focus; at a further stage it is planned to apply best practice and multiplier effects to other protected areas in Yemen. The presentation will give an overview about the recently started GIZ-project, its background, main components and approach. Beyond that, possible options for implementing development activities will be shown, given the fact of actual remote steering due to political instability in the country.

# RESEARCH

## Potential and reality of ecotourism in the Arabian Peninsula: Hawar Islands of Bahrain as an example

**Khawla Al-Muhannadi**

Environmental Friends Society, Bahrain. Email: [khawla.almuhannadi@gmail.com](mailto:khawla.almuhannadi@gmail.com)

The presentation is an assessment of the marketing potential and impacts of ecotourism in the Hawar Islands of Bahrain. Data were gathered through interviewing the officials and stakeholders in Hawar and by studying the archival materials obtained from each stakeholder. A questionnaire was used in Hawar with the tourists in addition to informal semi-structured interviews with some at tourist gathering places. I stayed for about four weeks on the island and revisited places mentioned in archives as archaeologically or traditionally important sites. I explored the route a tourist usually takes and the limitations (s)he faces. I travelled extensively throughout Hawar Island and the other 10 main groups of islands in an effort aimed at assessing possible additional routes which could be established. I found the islands to have great potential for ecotourism due to their unique natural beauty, biodiversity and exotic landscape and a sense of isolation. Some islands are of such beauty that they are worth a sea trip in and for themselves and the water is of such transparent clarity and rich in biodiversity that it is not necessary that visitors step on any island. I find Hawar island itself rich in potential sites for ecotourism while almost all the current tourist activities on the island are concentrated only in two particular places and range mainly between swimming and using the hotel's facilities. There are few people who have their own boats and go boating and fishing. The majority of tourists leave the islands without any environmental educational knowledge and without meeting any tourist guides, although the Hawar Islands are protected islands under the government Act and registered as Ramsar Site since 1997. Tourists get to see some scattered gazelles or oryx if they are lucky during the BD 1 special tour that covers a very limited area. Tourists, however, leave without seeing the other islands and the majority do not know of their existence. It is apparent that while conservation and possibly ecotourism appears high on governmental agendas, tourists are not aware of that and so as the companies running the tourism in Hawar for whom facilities provided in the two main tourist sites of Hawar Island constitute tourism. This study presents that most tourism typology to Hawar is family tourism and the most age groups enjoying the trip are young people below 35.

Exploring weaknesses, strengths, opportunities of, and threats to the Ecotourism in Hawar, and on the basis of materials collected, it is my opinion that a) different stakeholders of Hawar have different plans for the island and the current tourism infrastructure and facilities are not completed and improved to cater for the existing tourists and attract other groups; b) however, there are problems which have to be resolved in coping with such 'development'; as tourists grow in number, so is the threat of increasing the huge amount of waste scattered in the island, electricity and water consumption and more damage to the marine environment; c) to cope with such envisaged risks, there is the availability of both a well-designed water desalination factory and a limited used sewage treatment plant; d) potential opportunities for support are the assessment of Hawar Archipelago for inclusion in the World Natural Heritage List and the use of recently completed but as yet unused large sewage treatment plant and the newly established General Commission For Fisheries, Environment And Wildlife Protection that joined the three main stake holders of Hawar in a new organization under the presidency of the second son of the King.

## Stalagmite records of climate variability on Socotra Island

**Dominik Fleitmann**

Institute of Geological Sciences and Oeschger Centre for Climate Change Research, University of Bern, Baltzerstrasse 1+3, 3012 Bern, Switzerland. Email: [fleitmann@geo.unibe.ch](mailto:fleitmann@geo.unibe.ch)

Present-day climate on Socotra is strongly affected by the monsoon and changes in the location and strength of the Intertropical Convergence Zone. Knowledge of past climate variability on Socotra is important to put recent environmental changes into a broader context. Currently, there are only a few observational climate data available and, thus, information on climate must be gained from geologic records. On Socotra the most promising climate archive is cave deposits, such as stalagmites, which can be found in numerous caves. In my talk I will present results from ongoing studies on stalagmites from Socotra, which provide detailed and almost continuous information on climate variability on Socotra over the last 55.000 years (Burns et al., 2003; Fleitmann et al., 2004; Fleitmann et al., 2007; Shakun et al., 2007; Scheidegger et al., 2011).



Road development on Socotra 2011  
Photo: R. Porter

# RESEARCH

## **Indian Ocean Monsoon dynamics recorded in three speleothems from Socotra, Yemen**

**Van Rampelbergh Maité<sup>1</sup>, Verheyden Sophie<sup>1</sup>, Hai Cheng<sup>2</sup>, Peter De Geest, Philippe Claeys<sup>1</sup>, Eddy Keppens<sup>1</sup>**

<sup>1</sup>Vrije Universiteit Brussel, Earth System Sciences, Dept. of Geology (DGLG). E-mail: mvrampel@vub.ac.be

Three stalagmites recovered from two different caves on the eastern side of Socotra document the evolution in the latitudinal position of the Intertropical Convergence Zone (ITCZ) and associated changes in the pattern of meteoric precipitation (sources, directions, amounts) over the last 6,000 years.

Socotra experiences two rainy seasons associated with the seasonal migration of the ITCZ. Precipitation is delivered as the northward migrating ITCZ passes over the island in May-June and as it returns during its southward migration from September to December. Little or no rain falls during the summer (southwestern) and winter (northeastern) monsoons (Shakun et al., 2007). The NW/SE oriented Haggeher Mountains create an orographic barrier forcing precipitation, brought by the northward migrating ITCZ, to fall mainly on the southwestern part of the island. Rain delivered by the southward migrating ITCZ affects the northeastern part of the island, where the studied caves are located (Scholte and De Geest, 2010). STM1 and STM6, both from Hoq Cave, cover the last 6,000 years and the last 4,600 years respectively. Stalagmite STM5 from Casecas Cave, 6 km south-west from Hoq Cave, spans the last 1,000 years (ICP-MS U/Th-dating). Stable isotope measurements ( $\delta^{18}O$  and  $\delta^{13}C$ ) were carried out on the three stalagmites. The similar evolution of the isotopic signals in the overlapping parts in all three speleothems demonstrates the reproducibility of the time-series. Mg/Ca and Sr/Ca analyses were carried out on STM1 only (AAS). All proxies are interpreted as indicators of drier- or wetter conditions and they all co-vary over the studied period. Due to the location of the caves on the eastern side of the Haggeher Mountains, the profiles are expected to reflect precipitation-changes during the southward migration of the ITCZ when northeast winds dominate.

---

## **Socotra: Gateway to the Red Sea.**

**Julian Jansen van Rensburg**

**Institute for Arab and Islamic Studies, University of Exeter, Exeter, UK. Email: jj243@exeter.ac.uk**

The island of Socotra with its imposing mountainous landscape, rich natural resources and relatively safe anchorages has attracted the interests of numerous nations throughout the ages. Consequently, Socotra has a rich historical narrative which spans a period from the first century CE to the present day and encompasses a range of people and nations from as far afield as India, Africa, Arabia and Europe. Previous studies into Socotra's historical past have focussed on Socotra's long distant contacts and have attempted to fit Socotra within the global Indian Ocean trading network and there has been little regard for Socotra's place within regional networks of trade and travel. This talk will seek to address this gap by demonstrating the role Socotra has played in regional networks of trade and navigation within the Gulf of Aden and the southern Red Sea.

Utilising recent archaeological evidence together with the historical accounts taken from the log books, journals and sailing directions belonging to several different navies this talk will focus on two aspects through which Socotra has influenced the Red Sea. The first aspect concerns the role of Socotra as a choke point that was utilised initially by pirates and later by the various navies in their bid to control the flow of shipping and trade into and out of the Red Sea. This section will seek to answer several questions concerning the reasoning behind which Socotra was chosen as a choke point, the effectiveness of the various attempts to restrict the flow of trade and how these attempts affected shipping moving in to and out of the Red Sea. The second part of this talk will focus on the land and seascape of Socotra, by determining how the various aspects of the land and seascape have affected both the use of Socotra as a choke point for the Red Sea and as a navigational landmark in the western Indian Ocean. This will include looking at the landscape of Socotra and the mainland of Africa and Arabia to determine why Socotra functioned as such an important navigational landmark for shipping seeking to enter and exit the southern Red Sea. Furthermore this section will also address the reasoning behind the use of Socotra as a victualling station and what made it such an attractive option for passing sailors.

# RESEARCH

## Arachnids of Socotra Island

Vladimír Hula and Jana Niedobová

Department of Zoology, Fisheries, Hydrobiology and Apiculture, Mendel University Brno, Czech Republic.  
Email: hula@mendelu.cz

Socotra Island is unique because of its incredible biodiversity and high endemism recorded in several groups - we focused mainly on the arachnids. The first comprehensive investigation of the terrestrial Socotran fauna and flora was undertaken by the Balfour expedition in 1880. More recently, some spiders were collected, for example by Grisswold (1987), such as *Moggridgea socotra* and by Antonius van Harten. The latter entomologist collected many spider species and a lot of them were described in the journal ***Fauna of Arabia*** in cooperation with several arachnologists (B. Knoflach, M. I. Saaristo, A. J. Santos, W. Wesolowska, M. Alderweireldt, C. A. Rheims, A. S. Dippenaar-Schoeman, Ch. Deeleman-Reinhold and M. Grasshoff). Altogether, these specialists have mentioned a total of about 40 species of spiders from Socotra.

In year 2009 we started our investigation on Socotra Island. We have collected during three visits, in June 2009, June 2010 and November 2010. During these expeditions we collected over 1,000 specimens of spiders of all families known from the island and two newly recorded families (the Crevice Weaver Spiders Filistatidae and the Sicariidae). Our preliminary results show that Socotra Island is poorly explored from an arachnid point of view. There are a lot of unique, new arachnid species on Socotra Island, which still need to be described. Despite all the work that has been done before, there is still a lack of knowledge in different areas of arachnology, such as in the spider fauna of caves, the mountain forests of Scant or scorpions around the whole island.

We noticed a very negative relationship between the Socotri people and invertebrates and people working with these groups. Socotri people are very afraid of scorpion and spider species in particular, yet on the other hand are unaware of the black widow (*Latrodectus* spp.) which is one of the most dangerous terrestrial animals on the island. One of these spider species lives directly on their houses in villages, yet fortunately it is not aggressive. For saving the Socotran ecosystems and their uniqueness, it is very important to raise people's awareness about the ecological chains in the landscape, because island ecosystems belong to the most delicate ecosystems in the world. This research is supported by grants of the Ministry of Education, Youth and Sport of the Czech Republic no. LA 10036/MSMT.





# RESEARCH

## Present and future plant research on Socotra

**Anthony Miller, Sophie Neale and Alan Forrest**

Centre for Middle Eastern Plants (CMEP), Royal Botanic Garden, Edinburgh, UK. Email: T.miller@rbge.ac.uk

Including evolutionary data into conservation management plans is a major challenge, especially when adopting a large scale rather than a species-level approach, as has been favoured in recent decades. Isolated islands are an ideal testing ground for such exercises, as the biota is constrained within a defined space and can be treated as a single unit. We are generating evolutionary data for a range of related taxa that will shed light upon the processes that have shaped the Socotran flora and will incorporate this information into conservation strategies at the island scale. To do this we are mobilizing the extensive existing collections from Socotra and adjacent parts of Africa and Arabia to extract ecological information as well as generating a range of comparative molecular phylogenetic studies. We discuss an example of one such a study, the importance of cliff refugia as drivers for evolutionary processes in the genus *Boswellia*. The use of lichens for identifying such refugia is suggested. It is argued that Socotra can be viewed as a model system research on which has implications for conservation in the rest of Arabia particularly for the identification of protected area systems.

## First *Boswellia* plantings in Homhil

**Dana Pietsch**

University of Tuebingen, Tuebingen, Germany. Email: dana.pietsch@uni-tuebingen.de

Results of soil investigations show that in the Homhil Protected Area, erosion due to soil structure and humus loss increases drastically. When soil is getting loose, trees are uprooted and the possibility for fresh food supply for cattle in dry seasons is reduced. After preserving the soil by building walls in terms of sediment traps in 2007, 20 cm of sediment accumulated by 2009. After 4 years, in 2011, there was enough sediment for planting of the endemic *Boswellia elongata*. Together with Ahmed Adeeb from the nursery in Hadiboh, and with the help of Homhil inhabitants, the first endemic *Boswellia* seedlings, grown in the nursery, have been planted within pottery made in Momi. Fences for the protection of single trees have been created and positioned. In case of successful growth, more trees will be planted in 2012. The main impulse behind this initiative is to preserve soil and plants for the future generations by using simple techniques.

## The effect of *Dracaena cinnabari* as a nurse plant on plant diversity

**Martin Rejžek, Radim Matula and Hana Habrová**

Faculty of Forestry and Wood Technology, Mendel University Brno, Czech Republic. Email: Martin.rejzek@mendelu.cz

Nurse plants are those that facilitate the growth and development of other plant species growing beneath their canopy. This facilitation is provided through more favourable microhabitat conditions for seed germination and seedling recruitment beneath canopies than in surrounding open ground. The effect of nurse plants is well known from several arid and sub-arid vegetation types.

In our study we focused on the most famous one among Socotran trees – the dragon blood tree *Dracaena cinnabari* Balf.f. Its umbrella-shaped crown with leaves forming dense rosettes offers shade and has ability to collect water from fog and therefore the environmental conditions found beneath *Dracaena* canopy are more benign for plant growth. Our observational study was carried out on Rokeb di Firmihin plateau in central Socotra where we collected several relevés (vegetation plot records) placed beneath randomly selected trees and in the adjacent open ground. The results show that there are plant species whose occurrence is significantly higher beneath dragon blood trees but there are also species that significantly avoid this under-canopy space.

Acknowledgements: The publication was supported by the „Fond Partnerství“ (CH 003 – 016).



Socotra Chameleon (above) and Black Throated Thrush (below) photos March 2011 by R. R. Porter



# RESEARCH

## Root system development of *Dracaena cinnabari* Balf. on Socotra Island

Irena Hubálková and Jindřich Pavliš

The Dragon's Blood Tree (*Dracaena cinnabari*) is one of Socotra's iconic natural features. It is an evergreen tree with a typical umbrella-shaped crown due to a "dracoid" ramification of branches. This unique endemic plant covered larger area in the past. Natural seeding is threatened by goat grazing and stand density is decreasing. Age structure of *Dracaena* populations indicates maturity and overmaturity depending on browsing.

The purpose of this contribution is to introduce an ongoing study of the Dragon's Blood Tree root system, which involves characterisation of plant root architecture, anatomical and functional descriptions. Anatomical and morphological structure of roots have been poorly investigated even though it is a very important and interesting issue which deserves further study.

Major fieldwork was carried out on Socotra Island in January and February 2011. Fresh windthrow was chosen on Firmihin plateau, where there was a windblown gravel mound (coordinates N 12°28,867'; E 54°0,602'). Fieldwork consisted of exposing plant roots followed by measurement of the uncovered roots. The parameters have served for root architecture modeling and visualization in a 3D visualizing program. According to age estimation method developed by Adolt and Pavliš in 2004, the tree has achieved the age of 380 years. It reached a height of 7.5 m, crown projection of 6.8 m and breast height diameter about 60 cm. It is evident that the root system of Dragon Blood Tree is superficial. Horizontal roots reach considerable sizes, the length extending far beyond the crown projection and some roots reach a length of 15 m. Only a few thin anchor roots are developed with a maximum depth of one meter. This is influenced by a shallow soil layer, massive bedrock and a lack of groundwater. Superficial roots easily capture the precipitation. Massive roots penetrate cracks in parent rock, hold the plant steady and grabbing moisture and nutrients from shallow soil profile. Stem breaks of overmature or damaged trees are common, however windthrows are highly sporadic.

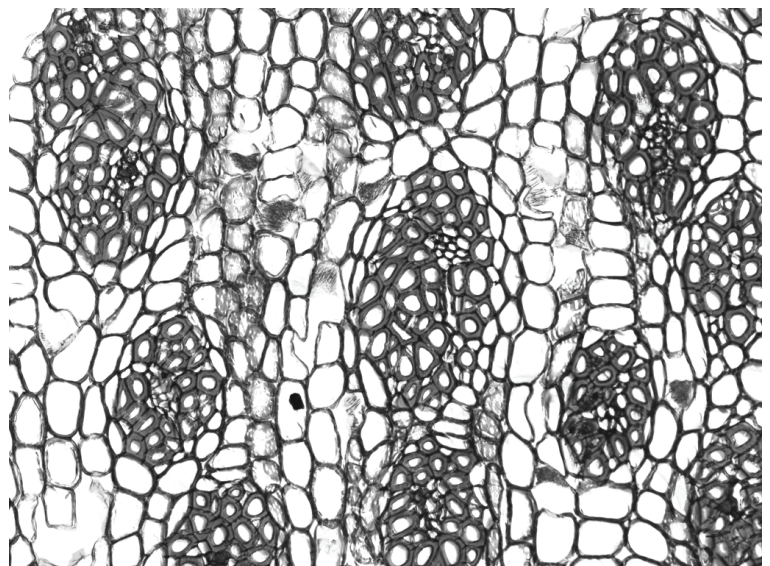
Anatomical study of *Dracaena cinnabari* can allow understanding of the physiological processes taking place in the trees. The authors are currently engaged in research studying secondary thickening parts (branches, stems, roots). The authors are implementing the methodology involving micro-core embedding, smoothing, moistening and cutting of the samples, followed by "fishing", staining and photographing the microscopy slides. *Dracaena* is a monocot but not a true palm. All monocotyledons lack a vascular cambium, which is typically a single persistent row of cells producing phloem centrifugally and xylem centripetally. The vascular bundles are surrounded by very prominent fibre bundles. The stems undergo a specialized secondary growth, which manifests itself in the production of additional parenchymatous elements. Their later growth pattern is termed diffuse secondary growth, and consists mostly of a proliferation of ground parenchyma cells and additional vascular bundles near the periphery. The stem diameter is increased after stem elongation.

Tropical scientists from Czech Republic (Mendel University in Brno, Faculty of Forestry and Wood Technology, Department of Forest Botany, Dendrology and Geobiocoenology) are also conducting research on population dynamics of *Dracaena cinnabari*. Awareness of ecophysiological processes may aid in understanding the adaptation and growth conditions of this endangered plant.

This contribution was financially supported by Fund Partnership CH003 – 016.

Bc. Ing. Irena Hubálková, Mendel University in Brno, Faculty of Forestry and Wood Technology, Department of Forest Botany, Dendrology and Geobiocoenology, Zemědělská 3, 613 00 Brno, Czech Republic, irena.hubalkova@mendelu.cz

doc. Ing. Dr. Jindřich Pavliš, Mendel University in Brno, Faculty of Forestry and Wood Technology, Department of Forest Botany, Dendrology and Geobiocoenology, Zemědělská 3, 613 00 Brno, Czech Republic, jpavlis@mendelu.cz



**More photos on Page 19 and 24**

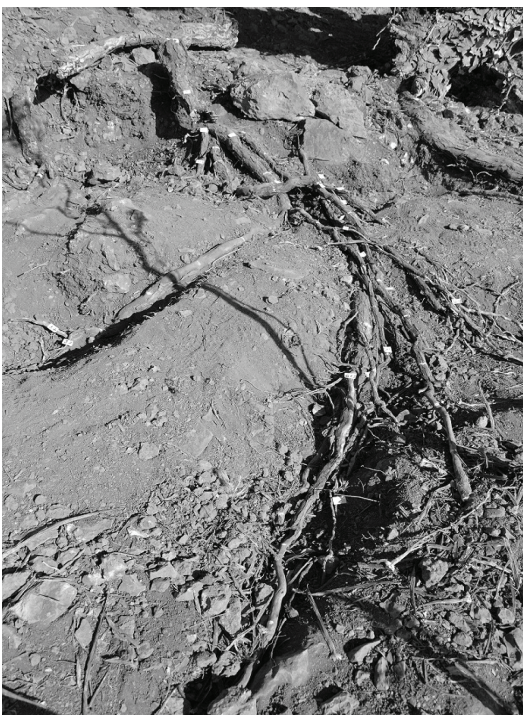
# RESEARCH

## Crown age estimation of a monocotyledonous tree species *Dracaena cinnabari* using logistic regression

Radim Adolt, Hana Habrova & Petr Madera

Unique woodlands of *Dracaena cinnabari* (DC) are at risk throughout most of their range (Socotra Island, Yemen) as a result of missing regeneration and overmaturity. Effective conservation measures depend on reliable predictions of future population dynamics, which depend on accurate data on current age structure. However, age determination of *Dracaena* sp. has long been a scientific challenge, because the common method of tree ring counts cannot be applied to this or to most other monocotyledonous trees. In the present study, the indirect method for crown age estimation proposed by Adolt and Pavlis (Trees 18:43–53, 2004) was further developed using a more appropriate statistical technique and an intuitive model formulation. This new technique is based on the relationship between the number of branching orders and the number of flowering events that result from a specific growth pattern. We used logistic regression to directly model annual flowering probability, the reciprocal value of which corresponds to the length of the interval between flowering events. Our methodology was applied to data sets collected at two ecologically distinct sites. In Firmihin, the time between flowering events decreases from 28 years between the first and second event to 10 years between the 25th and 26th event. The length of time between flower events in Skant, however, was estimated to be a constant value of 6.5 years. We propose the application of generalised mixed-effects models and methods of survey sampling to improve the accuracy of crown age estimation in DC. Our methodology may also be useful for age estimations of other tree species with similar growth patterns, such as *Dracaena draco* and *Aloe dichotoma*.

Published in *Trees*, online, 2012



# RESEARCH

## **Socotra, a “micro-continent” in terms of coastal fish diversity**

**Uwe Zajonz<sup>1</sup>, Friedhelm Krupp<sup>2</sup> and Edouard Lavergne**

<sup>1</sup>Biodiversität und Klima Forschungsinstitut Frankfurt am Main (BiK-F), Germany. <sup>2</sup>Qatar Natural History Museum, Qatar. Email: uwe.zajonz@senckenberg.de

The Archipelago hosts very diverse and biogeographically unique fish communities. About 735 fish species in 109 families have been recorded from the Archipelago to date, with over 850 coastal and pelagic species being expected to occur (excluding deep-dwelling species below 200 m depth), compared to the Red Sea where about 1,035 species from depths of less than 200 m have been recorded. Socotra is the place with the highest diversity of marine fishes in the Arabian region. Despite the fact that the Archipelago has few biogenic reefs, the diversity within certain “reef” associated families matches up with or even exceeds, respectively, the diversity of these groups in the entire neighbouring Red Sea. This is particularly striking as the total coastal length of the island group is estimated at about 650 km and the total area occupied by sublittoral biotopes at about 677 km<sup>2</sup> only, of which substantial areas represent clean mobile sand, large and small rock boulders or cobbles of low biological diversity (Klaus et al 2004). In comparison, the Red Sea is nearly 2,000 km long and has about 5,143 km of shoreline and a coastal shelf which, especially in its northern and central section, supports well developed biogenic reefs. If the Red Sea, in drawing a simplifying analogy, would host as many species per kilometre of coastline as the Socotra Archipelago, more than 6,000 species of fish would occur there. Or, in the reverse direction, if Socotra had a species-area relationship similar to the Red Sea given its expected richness, with a resulting coastal length of about 4,230 km it would have to be almost as large as Madagascar (4,828 km). Thus, other ecological determinants than the species-area relationship such as habitat heterogeneity, niche diversity and biogeographic nesting are more likely candidate factors to explain the diversity of Socotra’s coastal fish assemblages. The archipelago may thus well be considered a marine “micro continent” in terms of its ecological ichthyogeography.

---

## **Population connectivity of an endemic reef fish around Socotra Island**

**Hannes Pulch, Uwe Zajonz and Markus Pfenninger**

Biodiversität und Klima Forschungsinstitut Frankfurt am Main (BiK-F), Germany. Email: hannes.pulch@senckenberg.de

The Socotra dottedback *Pseudochromis* sp. (Perciformes: Pseudochromidae) is one out of three species of the family recently identified as new to science and endemic to the Socotra Archipelago. It is currently being described by Gill & Zajonz. It belongs to a clade of four species which inhabit the Red Sea, the east Arabian coast, Socotra and the east African coast. Morphological comparison suggests the east African species as its putative sister species. The connectivity of populations around Socotra Island is inferred from morphometric, meristic and molecular data, and the ecological niche, distribution and range of the species is described. The ultimate aim of the study is to establish the species as one of several model organisms in marine conservation science of Socotra, allowing the evaluation of the existing MPA (Marine Protected Areas) scheme implicating both molecular methods and species distribution models.

---

## **Coral communities of Socotra (2000-2011): Recovery, resilience and refugia**

**Rebecca Klaus<sup>1</sup>, Uwe Zajonz<sup>1</sup>, Malek Abdul-Aziz, Fouad Nasseb Saeed, Thabet Abdullah Khamis, Salah Saeed Ahmed, Maren Ziegler and Lyndon DeVantier**

<sup>1</sup>Biodiversität und Klima Forschungsinstitut Frankfurt am Main (BiK-F), Germany. Email: Rebecca.klaus@gmail.com

A set of permanently marked sub-tidal monitoring sites was established around the Socotra Archipelago in 2000 by the Senckenberg Institute team as part of the UNDP-GEF funded project entitled “Conservation and Sustainable Use of Biodiversity Socotra Archipelago: Marine Habitat, Biodiversity and Fisheries Surveys and Management”. The sites have been maintained and surveyed yearly by the EPA marine team since then, with more detailed surveys being completed by combined UNDP-Senckenberg teams in 2003 and 2007, and more recently in 2010 and 2011. The benthic communities around the islands were impacted by coral bleaching in 1998, due to high seawater temperatures which were sustained for 18+ months. Bleaching related mortality was however spatially variable, due to the cooling influence of the upwelling systems; coral communities around the main island were the worst affected. Over the past decade coral cover has increased significantly (by between 15% to >50%) at 5 out of 6 sites ( $p < 0.001$ ) around the main island. The recovery is due largely to the colonisation of these sites by bleaching-susceptible tabular and branching acroporid species. Only one shallow site demonstrated a decline in coral cover as a result of human induced impacts associated with developments near to the jetty. The results demonstrate both the importance of the refugia created by the upwelling and the resilience of the highly dynamic coral communities found around the islands, which are critical for ongoing studies and conservation.

# RESEARCH

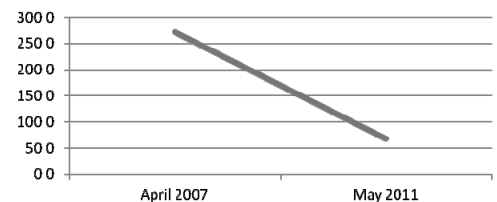
## Sustainable traditional fisheries management on Socotra: A tale of wishful thinking?

Uwe Zajonz, Moteah Sheikh Aideed, Fouad Nasseb Saeed <sup>1</sup>, Edouard Lavergne, Rebecca Klaus, Friedhelm Krupp <sup>2</sup>

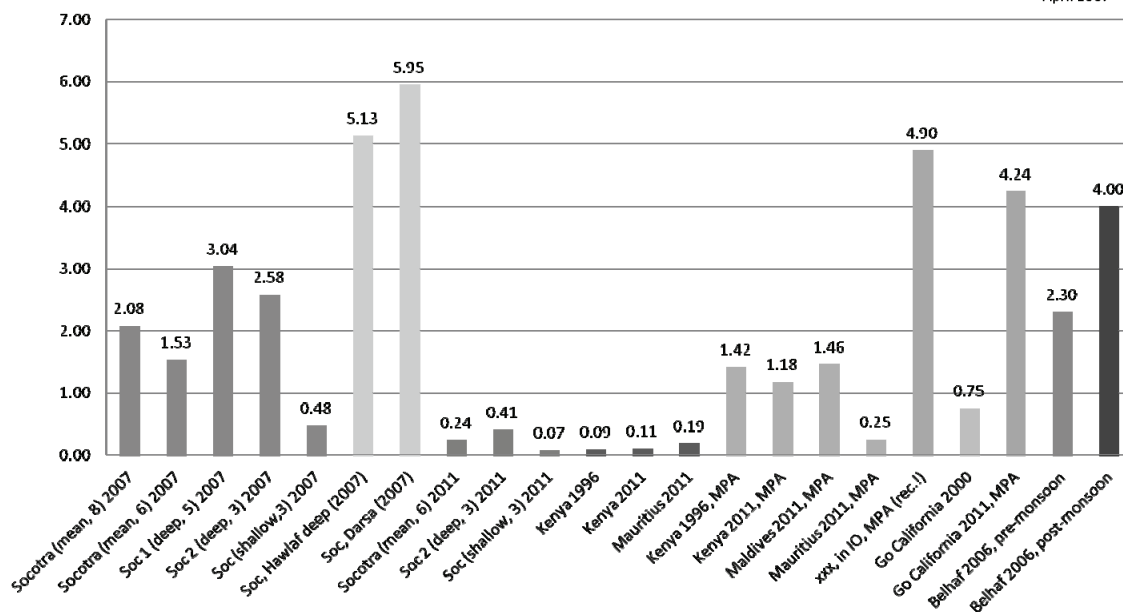
Biodiversität und Klima Forschungsinstitut Frankfurt am Main (BiK-F), Germany; <sup>1</sup> Environment Protection Authority, Socotra, Yemen, <sup>2</sup> Natural History Museum, Qatar Museums Authority, Doha, Qatar

Matching an impressive biological diversity, not only in fish but also in many other marine taxa, the coastal ecosystems of Socotra have long been thought of as being highly productive resting on a primary productivity which is seasonally fertilized by monsoon-driven upwelling waters. Coastal productivity, however, has thus far not been actually measured but rather inferred, e.g. from landings of the small scale fisheries. The fisheries communities are usually praised for managing their stocks according to traditional regulations. It used to be common sense that the local fisheries are, by-and-large, sustainable with only a few target species such as sharks and lobster, and more recently sea cucumbers, being probably overused. Inshore fish biomass estimates were started in April 2007 (pre-monsoon) as a proxy measure of coastal productivity, adding to the existing marine biological monitoring programme and the fisheries data collection programme of the EPA. Estimates are based on visual underwater length-frequency counts at eight permanent transect sites. Fish biomass (standing crop) of marketable, or usable respectively, species ranged between 0.08 and 5.13 tons per hectare for six sites on Socotra Island, and had an average of 1.53 t/ha. The site on Semha yielded 1.48 t/ha and the site on Darsa Island yielded an exceptional 5.95 t/ha. Four of the remainder five sites on Socotra show figures below 1 t/ha indicating probably already severe fishing pressure back in 2007. Sites exceeding 5 t/ha (Hawlaf deep, Darsa) rank among the most productive reef sites in the Indian Ocean and match, or surpass respectively, values known thus far only from very few long-term No-Take reserves. These biomass values are even more impressive in considering that the data were taken shortly before the monsoon, thus after fishing activities had harvested coastal productivity already for about six months. Biomass estimates were repeated in May 2011 for the six sites at Socotra, yielding most severe drops in standing crops for all sites, ranging only from 1.03 to 0.03 t/ha. A 5-6 fold decline of mean biomass from 1.53 to 0.24 t/ha and a drop of about 75% in abundances is considered alarming. Moreover, additional surveys of 2011 compared biomass of communities situated in three managed Nature Sanctuaries with communities in nearby areas. Initial results shed doubts over the efficacy of the management regime. The present tentative results call for additional research to inform management action. The observed trends are yet to be corroborated but if so, socio-economic implications could be severe.

Mean abundances (trend t6)



Comparison of fish biomass, Soc 2007 + 2011 (t/ha)



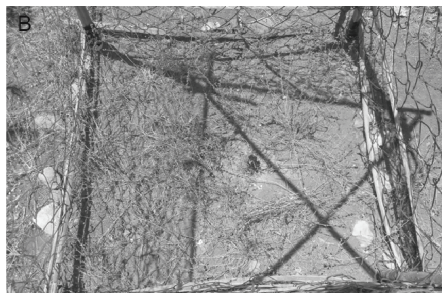
# ETCETERA

## *Boswellia elongata* in Homhil

Dana Pietsch

As reported in *Tayf 8*, in Homhil a few endemic *Boswellia elongata* seedlings were planted in January 2011. Together with Ahmed Adeeb from the nursery in Hadiboh and with the help of Homhil residents, fences protecting single trees from goats have been built (Fig. A), which after 1.5 years are still strong. From the first five planted seedlings, which were grown up in the nursery for over 2.5 years, only two survived (Figs. B and C). Although this trial shows that tree-planting protected by small and stable fences can be successful and is good practise for soil conservation, we should think about the regular watering of the small trees. Without watering survival during the dry season will be problematic. Whenever the situation allows us to continue the planting (hopefully in 2013), we will hope to ensure that they are watered.

Thanks to Hana Habrova for checking the situation in Homhil and for taking the photographs (April 2012).



Watercock, Soqatra 2011. Photo Richard Porter

### News Please!

As there have been few visits by FoS members to the island this year the 'News' section of this Tayf is relatively short. Please send any news you have for the next edition. News is particularly welcome from our Soqotran members.

### Hameda al Khulaidi Obituary

We are sorry to announce the tragic death of Hameda al Khulaidi, wife of Abdul Wali al Khulaidi. Hameda died following complications after surgery during which she received a kidney from her eldest son Anas. *The family were hoping to come to the UK as Abdul Wali had received funding for continuing his research in Edinburgh from the Scholar Rescue Fund in New York.*



Woman serving tea at the Women's Association, which has recently had to close.

Bronze statue  
found on  
Soqotra



# CONTACTS

## WEBSITES

[www.FriendsofSoqotra.org](http://www.FriendsofSoqotra.org)  
[www.Socotraisland.org/fund](http://www.Socotraisland.org/fund)

The following websites also provide information on the island:

<http://rbgesun1.rbge.org.uk/Arabia/Soqotra/home/page01.html> Royal Botanic Garden Edinburgh. Plants, panoramas and ethnobotany.

[www.uni-rostock.de/fakult/manafak/biologie/wranik/socotra](http://www.uni-rostock.de/fakult/manafak/biologie/wranik/socotra).  
University of Rostock (Animals)

[www.sogotra.info](http://www.sogotra.info) A personal view by John Farrar.

[www.yemen-protectedareas.org](http://www.yemen-protectedareas.org)

[www.socotraproject.org](http://www.socotraproject.org) – SGBP website

<http://www.sogotra.com>; <http://www.sogotra.org/int/>  
<http://www.sogotra.com/vb/showthread.php?p=39668>

<http://socotra.info/socotra-news.php?start=20>

## TAYF

### ACKNOWLEDGEMENTS AND REQUEST FOR CONTRIBUTIONS

If you would like to include an article, research note or notice in future issues please send to:

[drsuechristie@aol.com](mailto:drsuechristie@aol.com)

Editing, design and layout by Sue Christie

Arabic Translation provided by Isam Edin Mohamed Ali,  
[azol12@yahoo.com](mailto:azol12@yahoo.com)

Many thanks to all the contributors, whose contact details are listed with their articles or can be obtained from the Editor. Unattributed 'News' articles come from the Yemeni press; full articles without named authors prepared by the Editor from submitted material.

## FRIENDS OF SOQOTRA

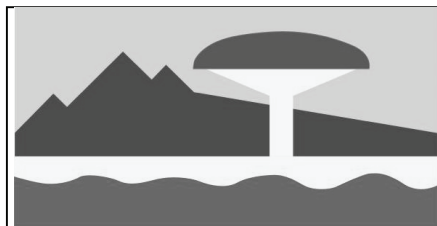
Friends of Soqotra (UK Charity Number 1097546) was formed in 2001. Its distinctive rationale is to bring together people with backgrounds in scientific research and those with a more general interest and develops the synergies between them in order to:

- Promote the sustainable use and conservation of the natural environment of the Soqotra island group
- Raise awareness of the archipelago's biodiversity and the unique culture and language of the islanders
- Help improve the quality of life of the island communities and support their traditional land management practices.

### New Friends of Soqotra website

At the FOS meeting in Bern in 2011 all attendant members voted for creating a new website. From 2001 the previous website was serviced by John Farrar, who now gave this job over to Dana Pietsch. Thanks John for this great work on public relations over the last 10 years! Friends of Soqotra is also deeply indebted to Bohdana Rombuskova for her help with structure and texts, and especially for her constructive comments on the new website. As the old one, this website provides information on completed and ongoing scientific research on Soqotra archipelago including data, bibliographies and contacts of institutions and research teams. The new structure and layout also includes a page in the Arabic language which will give some general information about FOS.

<http://www.friendsofsoqotra.org>



أصدقاء سقطري  
Friends of Soqotra

## Contacting Fos

[info@friendsofsoqotra.org](mailto:info@friendsofsoqotra.org)

**General Correspondence (Secretary):** Julian Jansen Van Rensburg; [fos.secretary@gmail.com](mailto:fos.secretary@gmail.com)

**Tayf:** Sue Christie, 49 Carnbane Road, Lisburn, BT27 5NG, Northern Ireland. Phone: +44 (0)2890 455770 or +44 (0)2892 682770 Email: [drsuechristie@aol.com](mailto:drsuechristie@aol.com)

**Chairman:** Kay van Damme, University of Ghent, Email: Laboratory of Aquatic Ecology, Lederganckstr. 35, 9000 Ghent, Belgium. Email: [Kay.VanDamme@gmail.com](mailto:Kay.VanDamme@gmail.com)

### Country Representatives

**Germany:** Dr Dana Pietsch, Tübingen, Germany [dana.pietsch@uni-tuebingen.de](mailto:dana.pietsch@uni-tuebingen.de)

**Soqotra:** Muhammad Amir Ahmad Amir Di Min Selmeahun [POB 111 Soqotra; mobile tel. 777727753]

**Oman:** Issam Khamis Thabit Al Soqotri, P.O.B. 766, Area Code 211, Governorate of Dhofar, Sultanate of Oman; telephone 00 968 95485734

**The Gulf:** Shukri Nuh Abdullah Al Harbi Di Kishin P.O.B. 1590, 'Ajman, U.A.E., telephone 00 97150 5775678 or 00 97150 2320808

### Officers and Executive Committee

**Chairman:** Dr Kay Van Damme, University of Ghent, Belgium

**Vice Chairman:** Dr Miranda Morris, University of St. Andrews, St Andrews, Scotland. [miranda@mirandamorris.com](mailto:miranda@mirandamorris.com)

**Secretary:** Julian Jansen Van Rensburg; [fos.secretary@gmail.com](mailto:fos.secretary@gmail.com)

**Membership Secretary & Treasurer:** Dr Hugh Morris, St Andrews, Scotland. [hctmorris@hotmail.com](mailto:hctmorris@hotmail.com)

**Tayf Editor:** Dr Sue Christie, NI Environment Link, Northern Ireland. [DrSuechristie@aol.com](mailto:DrSuechristie@aol.com)

**Communications Officer:** Lisa Banfield  
**Executive Committee: (above, plus)**

Diccon Alexander, London, England

Issam Edin Mohamed Ali

Dr Salma Barkwan, Wales

Lisa Banfield, RBGE, Edinburgh, Scotland

Martin Coree, Neil Holland Architects

Dr Roderic Dutton, Durham, England

Dr Hana Habrova, Czech Republic

Nick Jeffries

Sabina Knees, RBGE, Edinburgh, Scotland

Dr Dana Pietsch, Tübingen, Germany

Rowan Salim

Julian Jansen Van Rensburg, Univ Exeter, England



**Photos: Irena Hubálková**  
see article p 18

