



Wildlife Middle East



© Tom Bailey

Wildlife Middle East News is published quarterly. It contains papers, reports, letters and announcements submitted by veterinarians, biologists, conservationists, educators, and other animal care professionals working with captive and free-living wildlife in the Middle East region. Contributions are not refereed, although every effort is made to ensure the information contained within the newsletter is correct, the editors cannot be held responsible for the accuracy of contributions. Opinions expressed within are those of the individual and are not necessarily shared by the editors. Guidelines for authors can be downloaded from www.wmenews.com

NEWS

CONTENTS

- 1.** Editorial.
- 2.** Yemeni Leopard Recovery Programme
- 3.** Browse silage in the United Arab Emirates
- 4.** Primates in captivity
- 5.** Toxic plants in the UAE
- 6.** A grassroots environmental education initiative: a case study of 'the green group' at Horizon School, Dubai
- 7.** Arabian leopard capture in Yemen
- 8.** What's new in the literature
Book review "Arthropod Fauna of the UAE"
- 9.** News and events
Middle East Vet Conference
endoscopy wetlab
SSIG conference review

RAKBANK

Simply better شريكك لحياة أفضل

EDITORIAL

Many of the wildlife and environmental issues that we learn about in the daily news seem too BIG for ordinary people to deal with. It is easy to become paralysed into thinking that fixing the BIG problems is best left to the BIG organisations or conservation specialists with lists of qualifications after their names. BIG organisations are notoriously inefficient tools to fix problems that are often symptoms of a wider malaise within society. Likewise conservation specialists often spend more time fighting with other specialists for their patch of 'Eco-Turf' than solving the problems they were paid to solve in the first place. In the end, no matter how much money is spent and how many BIG projects are initiated, if the people within societies do not change their behaviour, then BIG projects are often hollow PR opportunities.

Which brings us on to why Wildlife Middle East News was established in the first place - we wanted to show that it is possible for people with an interest and passion for wildlife to make a small difference, even in their spare time. In many countries it is often grassroots organisations that make a real difference with respect to social and environmental issues. If you doubt this then consider the story of Chico Mendes. Chico Mendes fought to stop the logging of the Amazon Rainforest and founded a national union of rubber tappers in an attempt to preserve their profession and the rainforest that it relied upon. He was assassinated in 1988, by those who were opposed to his activism. If you want to be inspired by his story go to the BBC website (http://www.bbc.co.uk/worldservice/documentaries/2008/05/080507_living_with_chicomendes.shtml) and listen to a powerful radio documentary on the remarkable tale of a self-educated man who came from a remote corner of Brazil and whose legacy was to create reserves and preserve vast tracts of land.

So how refreshing it is to read an article from the Yemeni Leopard Recovery Programme (YLRP), an initiative that was started last autumn in an attempt to reverse the decline of Arabian Leopards in Yemen. Not a BIG project from a BIG organisation, this idea originated with a pupil, Melissa Stanton, from the Sana'a International School. In just a few months the YLRP has achieved some notable accomplishments which are outlined in the article by David Stanton. Likewise in our promotion of 'small is beautiful' projects Theri Bailey, one of our editors, describes how she set up a grassroots environmental education initiative, 'The Green Group', at Horizon School, Dubai. So it is possible for 'ordinary' people who may not be directly involved with environmental issues as part of their work, but who are concerned and prepared to commit some time and effort to make a positive contribution through grassroots initiatives like the YLRP or The Green Group at Horizon School. Just think of the number of parents and families touched by the enthusiasm of their children returning home, heads buzzing with ideas on leopard conservation or saving water and imagine what could really be possible if we all gave just a little of our time to a worthwhile cause.

In our announcement Wildlife Middle East News is distributing information on the 'Vanishing Spots' appeal by the Yemeni Leopard Recovery Programme and should any schools or organisations in the UAE wish to support this appeal we are happy to provide further information – please contact the editors. Already we are pleased to announce that the Jumeirah English Speaking School (JESS) in Dubai has raised some funds for this appeal and we congratulate all the teachers and children from JESS who have worked hard for this important cause.

WILDLIFE MIDDLE EAST NEWS OBJECTIVES

- Raising awareness of environmental and conservation issues affecting wildlife in the Middle East.
- Distributing information to enable better management healthcare and welfare of wildlife.
- Providing a central contact point for practical advice and information on wildlife management in the region.

So although this issue has a carnivore and education flavour, we have a diversity of other contributions. Two articles related to nutrition make important reading for those of us managing captive wildlife. In their article, Giulio Russo and, Jaap Wensvoort summarise potentially toxic plants in the UAE. While not an exhaustive list of dangerous plants, their article is an important resource for people who may be setting up wildlife collections. Managers of captive wildlife are aware of how hard it is to provide browsers with the correct diet and Jaap Wensvoort describes how he has developed a novel method for making browse silage. Although early days, this project looks very promising and we look forward to reporting updates on this project. The issue of smuggled wildlife is always a hot topic in the Middle East. In the current issue, An Pas provides us with an important summary of why primates should not be kept as pets. Finally, David Mallon and his colleagues provide some fascinating observations on how leopards were trapped in the mountains of Arabia using traditional stone traps called *margaba*.

So thanks for your support as we go into our third year of operation – keep the articles coming!

NEWSLETTER EDITORIAL TEAM

Tom Bailey, BSc, BVSc, MRCVS, Cert Zoo Med, MSc (Wild Animal Health), PhD, Dip ECAMS, Falcon and Wildlife Veterinarian, Dubai Falcon Hospital, PO Box 23919, Dubai, United Arab Emirates.

Declan O'Donovan, Dip.H.Ed., B.Sc., M.Sc. (Conservation Biology) CBiol, MIBiol, Director of Wildlife Services, Wadi Al Safa Wildlife Centre, PO Box 27875, Dubai, United Arab Emirates.

Chris Lloyd, BVSc, MRCVS, Cert Zoo Med, MSc (Wild Animal Health), Medical Director, Nad Al Shiba Vet Hospital, PO Box 116345, Dubai, United Arab Emirates.

Theri Bailey, BSc, MSc, Cert Ed FE, FRGS, Adjunct Instructor in Environmental Science, Zayed University, Dubai, United Arab Emirates.

YEMENI LEOPARD RECOVERY PROGRAMME

David B. Stanton

Sana'a International School, P.O. Box 2002, Sana'a, Republic of Yemen. yos@y.net.ye

Keywords: Arabian Leopard, Conservation, Yemen, nimr, Wada'a

The Arabian Leopard (*Panthera pardus nimr*) is arguably the rarest large cat on the planet. While this dubious distinction, based on a wild population of some 30 individuals, is generally given to the Amur Leopard (*P.p. orientalis*), there are close to 500 Amur Leopards held in zoos around the world. Wild Arabian Leopards might, by the most optimistic estimates, outnumber their far-Eastern cousins by as much as six to one, but with only 50 or so Arabian Leopards in captivity *P.p. nimr* is still at least twice as scarce as *orientalis*. That the Arabian subspecies survives at all is no small miracle on a peninsula where charismatic wildlife continues to disappear at an alarming rate. The Arabian Leopard's tenuous persistence in the wild is attributable to the resourcefulness of the animal, the ruggedness of the terrain that it inhabits, and pioneering conservation efforts across the peninsula, most notably in Oman and Sharjah, UAE.

The most recently inaugurated leopard conservation effort in Arabia is the Yemeni Leopard Recovery Programme (YLRP), an initiative that was started last autumn in an attempt to reverse the decline of Arabian Leopards in Yemen. The idea originated with former Sana'a International School (SIS) pupil Melissa Stanton as a means of continuing the ten-year SIS tradition of walking in the annual WWF "Walk for Wildlife." When WWF - UK decided to discontinue the Walk for Wildlife at the end of 2006, we decided to keep this popular school tradition alive as it is one of the most unifying events in the school calendar. The "1st Annual Walk to Save the Arabian Leopard," which was held on November 11, 2007, sprung from the premise that raising money for an endangered Yemeni animal and administering the funds ourselves would have greater relevance, especially for Yemeni students, than raising money for a non-indigenous species. Based on the amount of money raised (~ \$6,000) and the total distance walked (> 2,400 km), both of which were school records, this premise was borne out. From this encouraging beginning evolved YLRP.

YLRP's goal is to ensure an expanding population of wild Arabian Leopards in Yemen. Employing a strategy based principally on recommendations of the IUCN Cat Specialist Group, the YLRP seeks to achieve its goal by raising public awareness about the issue of leopard conservation in Yemen, improving the breeding success of captive leopards in the Sana'a Zoo, and enacting real protection for wild leopards. Ownership of the programme is kept with SIS students as a means of empowering them for future involvement in conservation issues around the globe. This is done through the Arabian Leopard Club, an organization with elementary and secondary branches. Older students generate leopard-centered activities that the younger children engage in. The younger students therefore act as a testing ground for activities that will eventually be expanded to other schools in Yemen and possibly elsewhere in Arabia. Members of the ALC also create



Fig 1 SIS students at the start of the 1st Annual Walk to Save the Arabian Leopard (©David Stanton).

fundraising items such as cards and posters, produce content for the YLRP website (under construction), and make presentations about conservation issues to Yemeni schoolchildren in other schools.

In just a few months the YLRP has achieved some notable accomplishments. We have brought the issue of leopard conservation to the attention of thousands of Yemenis through articles in local newspapers and magazines and in presentations to various audiences. We have initiated an institution-building process at Sana'a Zoo which should pave the way for improved facilities for their captive leopards and better utilization of the zoo's ability to educate a proportion of its 1.4 million annual visitors. Additionally, a children's book called "Vanishing Spots: the Arabian Leopard" has been written for the programme by children's author and folklorist Carolyn Han. A bilingual version (Arabic/English) with illustrations by Yemeni artist Abdullah al Amin is slated for free distribution to Yemeni schoolchildren. Most significantly, however, we have made considerable progress towards the designation of the Arabian Leopard as Yemen's national animal, an initiative that should eventually lead to a wide spectrum of improvements for Arabian Leopards in Yemen. In a parallel vein is the work that we have done towards the declaration of the "Wada'a Leopard Sanctuary," which when formalized will be perhaps the world's only protected area set aside specifically for the conservation of leopards.

These enigmatic animals are obviously a long way from having a secure future in Yemen, but given the trajectory and momentum of the Yemeni Leopard Recovery Programme, it is fair to say that progress is being made towards this end. Having generated a significant amount of interest in the cause, YLRP has become the focal organization for the conservation of Arabian Leopards in Yemen, and is now in a position to facilitate proper surveys and monitoring of wild leopards in this country. For more information or to make a contribution, please contact the coordinator, David B. Stanton, at P.O. Box 2002, Sana'a, Republic of Yemen, yos@y.net.ye, davidstanton@qsi.org, or Mobile No. 967733916928.



Fig 2 Wadi Lefaj in Wada'a, Amran where leopards are still believed to exist in Yemen (©David Stanton).

BROWSE SILAGE IN THE UNITED ARAB EMIRATES

Jaap Wensvoort

Private Office of Sheikh Hamdan Bin Rashid Al Maktoum, Dubai United Arab Emirates.
E-mail: jwensvoort@hotmail.com

Introduction

The diets of free ranging herbivorous animals in the United Arab Emirates (UAE) have originally included some form of browse (buds, flowers, leaves, twigs and bark) in various quantities. However, the feeds currently supplied to captive herbivores in the UAE are commonly restricted to grasses, alfalfa, vegetables, grains, grain by-products, mineral and vitamin supplements and compounded feeds. Fresh browse is sometimes supplied, but usually in limited amounts due to lack of availability.

Feeding Instead of Browsing

The ability to browse effectively and efficiently is a learned behaviour in free ranging animals (Distel et al 1991; Moore, 2003; Marsh et al, 2007). In many cases browse choice is governed by digestive, metabolic and physical adaptations (Hofmann 2000). However, in a captive situation these choices are often removed and the nutrition of browse, if offered, is based on availability, perceived palatability and historic animal preference. There are numerous species of browse plants but unfortunately the feed value of browse is only marginally understood (van Soest, 1996). Historically, many collection managers were reluctant to feed browse due to perceived toxicity through plant secondary metabolites (PSM) (Rietschel 2005). However, in spite of these perceptions, the use of browse in zoos is widespread (Plowman et al. 2006). Although the consumption of PSM's can cause food aversion (Provenza 1995), pathological and sometimes lethal effects (Atanasiadou 2005) they can also be eaten without manifesting any problems (Moore 2003). It has been shown that PSM's can exert beneficial effects on animal health (Mefodev 1996; Niezen et al 1998; Molan et al 2002; Hoste et al 2005) as well as increasing dietary efficiency (Leng 1997; Shelton 1999; Kamel et al 2008). It is therefore important that keepers who feed browse to their charges understand the implications of the browse type, amount of browse as well as the combinations or sequence in which the browse should be fed. Moore (2003) reported that certain animals are better at selecting and digesting browse than others. Captive specialist or generalist browsers fed a limited supply or no browse, often under-perform, suffer from disease and can die. (Palgi 2005; Miller et al 2008; Claus et al 2008). Other examples include peracute mortality syndrome in giraffe (*Giraffa camelopardalis*); wasting syndrome complex in moose (*Alces alces*); soft faecal consistency in tapir (*Tapirus spp.*) and langurs (*Trachypitecus auratus auratus*).

Availability of Browse

Existing plantations such as fruit farms, cultivations along road sides and in parks and gardens produce green waste from which browse could be selected for animal feeding. However, harvestable plantations are usually far from animal enclosures and fresh browse is, mainly due to its morphology, difficult to transport and store efficiently.

A plantation dedicated to fresh browse supply and planted close to animal enclosures might solve the problem of browse availability. However, in doing this, the supply and quality of water needs to be carefully planned. By concentrating on salt tolerant, but nutritious plant species, some of these limitations might be overcome, making the plantation much more sustainable. A potential challenge to the management of a browse plantation could be the effect of regular pruning on the nutritional quality of browse and its potential re-growth; issues which are not well understood. Examples of browse plants species in the UAE include: Sidr (*Zizyphus spina-cristi*), damas (*Conocarpus lancifolius*), saltbush (*Atriplex spp.*), ghaf (*Prosopis cinerea*), ghaf al bahr (*Pithecellobium dulce*), leucaena (*Leucaena leucocephala*), rakh (*Salvadora persica*) and date palm (*Phoenix dactylifera*).



Fig 1. Mobile browse press (©.Jaap Wensvoort).

Fig 2. Goats eating browse silage (©.Jaap Wensvoort).



Fig 3. Drum being filled in the browse press (©.Jaap Wensvoort).

Browse Investigation

Within the UAE there is an increasing demand for browse as a feed source for domestic and exotic animals. The potential supply of high quality browse from the existing plantations normally found along roads, public parks, farms and private gardens has been recognised. If handled properly and ensiled in plastic drums, good quality browse should be available all year round. Additionally, the availability of animal feed from local plant material, primarily grown for landscaping or fruit production contributes to a better utilization of water resources as well as reducing the need for animal feed imports and cultivations.

The author has initiated a project in Dubai to investigate the suitability of browse for ensiling and animal feed as well as investigating solutions to the limitations of availability, transportation and storage of browse. In this project, browse, which is considered suitable as animal feed, is collected and preserved by ensiling it in plastic drums at the site of the browse plantation. To facilitate ensiling, an experimental hydraulic press has been developed. The hydraulic press can handle drums with a volume of either, 30, 120 or 200 litres and exerts a maximum pressure of 130 bar. To date, 54 (120 litre) drums have been filled with between 55 - 65 kg of browse. They were stored in the shade for approximately three months. Some were opened after three months and the browse silage was fed to two herds of goats. Although it is too early to give detailed results, preliminary observations of the goats has shown that they readily consume the silage. The next phase of the project has seen the hydraulic press been made mobile as well as adding the ability to extract the air from the closed drum and replace it with nitrogen gas through a gas injection system.

Acknowledgements:

H.H. Sheikh Hamdan Bin Rashid Al Maktoum, Private Office; International Centre for Biosaline Agriculture; Animal Nutrition Group, Wageningen University; Dubai Municipality Public Parks and Horticulture Department, Dubai Municipality Food Laboratories; Wadi Al Safa Wildlife Centre; Sheikh Butti Al Maktoum Wildlife Centre; The Breeding Centre for Endangered Arabian Wildlife; Hanza Flex Hydraulics, Flowlines Technology and Gulf Mauser.

References are available on the pdf version on the website

TEN REASONS WHY PRIMATES ARE NOT PETS

An Pas

Breeding Centre for Endangered Arabian Wildlife, PO Box 2992, Sharjah. breeding@epaa-shj.gov

- 1- Zoonotic Disease Risk: Primates are genetically closely related to humans thus carry many diseases that pose a human health risk. The majority of primates sold by the pet trade in the Middle East are illegally smuggled Old World primates that have not been subjected to any health screening. Old world primates (Baboons, macaques, vervets) may carry some of the zoonotic diseases listed in Table 1, many of which can cause serious illness or even death in humans. While testing for these diseases is possible, it is very expensive and both false positive and negative test results can occur. Much is still being learnt about the various potential zoonosis carried by primates and the best way to detect them. **ALL PRIMATES MUST BE CONSIDERED A DISEASE RISK.**
- 2- Lack of experienced medical care: Many veterinarians do not accept primates for examination or treatment because of the disease risk. Many human physicians will not be aware of the dangers or treatment modalities available for some primate diseases such as Herpes B.
- 3- Many human diseases are also contagious to monkeys, such as influenza, measles, chicken pox, and tuberculosis and can cause serious illness in primates. Many primates come from parts of the world where diseases such as tuberculosis and Hepatitis B are common in the human population and may contract these diseases from human caregivers and subsequently pass on the disease to any in contact humans.
- 4- To capture a juvenile primate it is very likely that the mother will have been killed and possibly used for bush meat. The baby that is clinging on to the mother will be removed for the pet trade. All species of primate receive 24 hour attention from the mother. The pet owner will not be able to provide this. Psychological disturbances similar to those seen in neglected children have been recognized in orphaned pet primates.
- 5- Hand reared primates grow up to be dangerous animals that are unable to integrate with their own species

Viral	Parasitic	Bacterial
HIV (AIDS) / SIV	Hookworm	Tuberculosis
Hepatitis B	Giardia	Salmonella
Herpes B / SA 8	Balantidium	Campylobacter
Yellow fever	Malaria	Shigella

Table 1. Zoonotic diseases of primates.

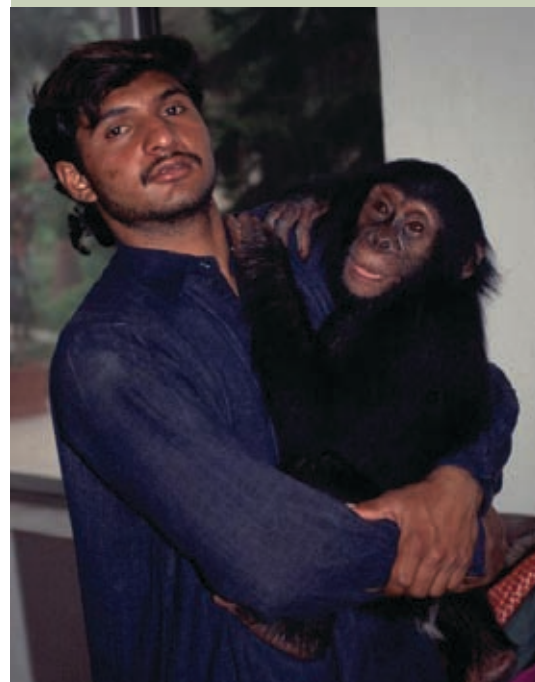


Baboon with canines that have been cut to prevent it biting its owner (©Chris Lloyd).

as they have not learnt any social skills from their peers. These group animals normally end up living a solitary and miserable existence. Isolated animals become depressed and show abnormal behaviour like pacing, over grooming or aberrant sexual displays. Monkeys can also inflict serious bitewounds.

- 6- Monkeys have specific dietary requirements. Primates do not have the same dietary requirements as humans. Most health problems in monkeys are caused by nutritional inadequacies.
- 7- Depending on the species a primate may live 20 to 50 years.
- 8- By nature, monkeys are messy and noisy. Keeping a monkey's cage and surrounding area clean is not an easy job. Monkeys are intelligent animals and environmental stimulation and intelligent cage design are essential. Monkeys will look for escape routes and they learn by watching you opening doors and locks. Be prepared for monkey escapes at all times.
- 9- The trade in endangered primates puts pressures on the survival of the species in the wild.
- 10- International trade of nonhuman primates is regulated under the Convention on International Trade in Endangered Species (CITES) and the Endangered Species Act (ESA). Most primates fall under Cites appendix II regulations; some do fall under Cites appendix I. All apes fall under Appendix I. This means that it is illegal to keep or buy apes (chimpanzees, gorillas) and that to import monkeys, permits are needed.

For further information see: <http://pin.primate.wisc.edu/aboutp/pets/>



Smuggled chimpanzee and owner (©Tom Bailey).

POTENTIALLY TOXIC PLANTS IN THE UAE – A BASIC GUIDE

Giulio Russo ¹, Jaap Wensvoort ²

¹ Nad Al Shiba Veterinary Hospital PO Box 116345, Dubai, UAE. raptor_uae@yahoo.com

² Private Office of Sheikh Hamdan Bin Rashid Al Maktoum, Dubai United Arab Emirates. jwensvoort@hotmail.com

Toxic plants exist in the UAE either in the wild or cultivated. Toxic compounds are part of a plants normal defence mechanism against herbivory. Generally, herbivorous animals recognize this through smell, taste, texture or post ingestive reactions. Voluntarily ingestion of toxic feed occurs when normal feed aversion mechanisms do not work or the plant is eaten by chance. For many plant poisons there is no specific antidote and treatment is generally supportive. The type and part of the plant ingested and animal species-specific digestive anatomy and physiology influence the potential effects of the toxin and should be considered by the veterinarian before treatment. This basic guide does not describe all the toxic plants growing in the UAE. Common

Common name	Latin name	Toxic active ingredient	Toxic parts	Signs of toxicity	Available
Elephant's ear	<i>Colocasia esculenta</i> (Taro)	Calcium oxalate salts in form of "needles"	Leaves and stems	Stomatitis, gastritis, enteritis. Possible deposits in the kidneys	Market
Sodom's apple (Rubberbush, Milkweed)	<i>Calotropis procera</i>	Milky latex rich in triterpenes	Whole plant	Blisters, lesions and eruptions on skin, GI mucosa (if eaten) and cornea/conjunctiva	Wild. Ubiquitous in UAE
Cycas palm (Sago palm)	<i>Cycas revoluta</i>	Alkaloid: cycasin	Leaves and stem	Vomiting, diarrhoea, headache, dizziness, seizures	Market
Jimson weed (Devil's thorn apple, Angel trumpet)	<i>Datura spp.</i>	Alkaloids: atropine, scopolamine, hyoscyamine	Whole plant	Tachycardia, seizures, hyperthermia, dry mucosa, mydriasis, respiratory depression, coma	Market
Mountain hemp (Sakra'n, Henbane)	<i>Hyoscyamus muticus</i>	Alkaloids: tropanalkaloide, hyoscyamin, scopolamin, atropine and others	Whole plant	Tachycardia, seizures, hyperthermia, dry mucosa, mydriasis, respiratory depression, coma	Wild. Ubiquitous in UAE
Iphiona	<i>Iphiona aucheri</i>	Terpenoids and two diterpene glycosides: atractyloside and carboxyatractyloside	Whole plant	Hepatic and renal necrosis, death	Wild. Ubiquitous in UAE
Peregrina (Spicy jatropa)	<i>Jatropha integerrima</i>	Di and triterpenes	Whole plant, seed.	Gastroenteritis; sap causes dermatitis	Market
Pregnant plant	<i>Kalanchoe pinnata</i>	Cardiac glycoside: bufadienolide	Whole plant	Dysrhythmias, hypotension	Market
Yellow / Red sage	<i>Lantana camara</i>	Triterpenoid: lantodene	Whole plant, unripe berries	Acute poisoning: gastroenteritis, weakness, paresis, death. Chronic: ulceration and sloughing of skin and mucosa	Market
Four o'clock plant	<i>Mirabilis jalapa</i>	Alkaloid: trigonelline	Seeds and roots	Gastroenteritis, confusion, tachycardia, hypotension	Seeds in markets
Oleander* (Desert rose (<i>Adenium obesum</i>) is reported to have the same toxicity)	<i>Nerium oleander and N. mascatense</i>	Cardio active glucosides, the most important are oleandrine, neriine, rosagenine, oleandroside, nerioside	Whole plant, water near the roots and dry sap	Dysrhythmias, CNS signs, seizures, tremors, collapse, coma. Sap causes irritation of skin and mucosa	Wild and in markets
Ornamental tobacco	<i>Nicotiana spp.</i>	Alkaloid: nicotin	Whole plant	Nervous symptoms, ataxia, seizures, paralysis, death	Seeds in garden centres
Castor bean	<i>Ricinus communis</i>	Ricin, protein made from 2 subunits: N-glycoside hydrolase and lectin	Whole plant, seeds.	Gastroenteritis (12-24 hours after the ingestion), depression, fever, cardiac alterations, seizures	Occasionally seen in gardens

and Latin names cited in this article can be used as keywords for identification of these plants on the internet. The plants listed below are all toxic and the best way to avoid poisoning is prevention.

Acknowledgements

The authors thank Brian Holmes.

References

Bo, S. 2004. Avvelenamenti, Antidoti attivi a livello gastrico, Antidoti sistemici. In: Febbo E., Vezzoni A., Caldin M., Furlanello T. Prontuario Terapeutico Veterinario - Medicina del cane e del gatto, Medicina degli animali esotici. Edizioni Veterinarie s.r.l. Cremona, Italy. 468-472.

Jongbloed, M. 2001. Ras Al Khaima and its surroundings. In: The Green Guide of the Emirates. Motivate Publishing. Dubai, UAE. 40-43, 58.

Useful websites

<http://www.enhg.org/>
Emirates Natural History Group

<http://www.ansci.cornell.edu/plants/index.html>
Cornell University Poisonous Plants Informational Database

<http://www.library.uiuc.edu/vex/toxic.htm>
Veterinary Medicine Library of Indiana

<http://chppm-www.apgea.army.mil/ento/PLANT.HTM>
US Army Center for Health Promotion and Preventive Medicine



Fig 1 Sodom's apple.

A GRASSROOTS ENVIRONMENTAL EDUCATION INITIATIVE: A CASE STUDY OF 'THE GREEN GROUP' AT HORIZON SCHOOL, DUBAI

Theri Bailey

Affiliation: Editor Wildlife Middle East News

“Never doubt that a small group of thoughtful, committed citizens can change the world. In fact, it is the only thing that ever has”.

Margaret Mead.

In September 2006, I set up a Green Group, with like minded parents, at our children's school here in Dubai. None of our members are environmental experts, but we are driven by our desire to work in partnership with the staff of the school to ensure that our children learn to become better global citizens who know how to live more sustainably on this earth. Living in such a 'throw away' society as the UAE, which has one of the biggest ecological footprints in the world, seems to make our task even more important, if not a little daunting!

The objective of the Horizon School Green Group is “to support the school's community (Pupils, Teachers, Parents, Management Team, Administrative Team and Shareholders) to;

- 1 - Learn about, delight in, value and care for the natural world.
- 2 - Understand environmental issues in order to strive towards solutions.
- 3 - Participate actively in the protection of the local and global environment.”

This quote by David Suzuki sums up well our hope for engendering our children's understanding of the importance of our natural environment in their lives :

**“We are the Earth, through the plants and animals that nourish us.
We are the rains and the oceans that flow through our veins.
We are the breath of the forest of the land, and the plants of the sea.....
Linked in a web of community, we are all interconnected.”**

David Suzuki from “The Declaration of Interdependence”.

Listed below are projects that the Horizon Green Group has achieved to date:

- **Environmental audit** of the school.
- Creation of an **Environmental Policy**. See Horizon School website www.horizonschooldubai.com.
- Introduction of an annual, whole school, 6 week topic on an environmental theme to the **school curriculum**. In the past couple of years we have covered 'Water' and 'Reduce, Reuse, Recycle, Repair'. Staff have enjoyed these topics and have done a huge amount in their classrooms with the topic culminating in exhibitions and assemblies for parents.
- Installation of **recycling bins** (paper and cardboard, plastics, aluminium) and a paper recycling system within the school.
- **A campaign** to reduce the amount of plastic waste generated by the children through drinking water bottles. Reusable metal water bottles were ordered and are now used by most children at the school. Currently we are participating in an aluminium can recycling campaign.
- Creation of an after school club called the '**Enviro-kids**' who have done practical projects such as make bird boxes out of recycled wood and planters out of recycled tyres.
- Assisting in projects to 'green' the outside area of the school. We have run a couple of '**planting**' days when all students from the school have brought in and planted annuals. We now aim to encourage the planting of more regional and drought resistant plant species.
- The publication of various '**Enviro-tips**' in the school's newsletter and '**Enviro-messages**' around the school.
- The creation of a '**Green Corner**' in the school library where students and teachers can readily find environmental books and access relevant bookmarked websites.
- Assisting with contacts and the arrangement of environmental **field trips** and **speakers**.
- **Celebration** of key environmental dates, such as UAE Environment day on the 4th February and World Animal Day on the 4th October.
- Initiation and coordination of a '**Second Hand Sale**'.
- **Fund raising and sponsorship** to support local and international environmental/conservation projects. Currently we support the Emirates Environmental Group and we will be fund-raising for the Yemeni Leopard Recovery Programme in the new school year.

In all our activities, whilst we are trying to address serious environmental issues, we always ensure that everything is done with a very large dose of FUN! In addition, our Green Group aims to be practical and realistic about what our Group and the school can achieve. After all, the members and staff are very busy people, so we do what we can and try not to beat ourselves up for not doing more!

Our Horizon Green Group would like to encourage parents and teachers from other schools to set up similar groups to our own and would be happy to share our ideas and experience. If you already have a school Green Group then please let us know what you're up to. Our Group would like to take this opportunity to thank the Horizon School management team and teaching staff for their continued enthusiasm, support and desire to work with us.

Any readers who would like further information on any of our projects, please contact; Theri Bailey, (WME Editor and Coordinator of the Horizon School Green Group) through the WME website. Links to pdfs of articles describing some of these initiatives are posted in the announcement.



Fig 1. Horizon school Enviro-kids learning about compost (©.Theri Bailey).



Fig 2 Enviro-kids making planters out of old tyres to green the school (©.Theri Bailey).



Fig 3 Water bottle monster at Horizon school (©.Theri Bailey).

LEOPARD TRAPS IN ARABIA

David Mallon¹, Masaa Al Jumaily², Kevin Budd³, Jane-Ashley Edmonds³, Julien Fattebert⁴, Abdul Karim Nasher²

¹ Co-Chair IUCN Antelope Specialist Group, Manchester, UK, ² Sana'a University, Faculty of Sciences, Yemen, ³ Breeding Centre for Endangered Arabian Wildlife, Sharjah, UAE

⁴ KORA, Bern, Switzerland.

Many of the Arabian leopards in the current captive population originate from Wada'a, in the western highlands of Yemen, where they were captured in traditional stone traps called margaba. These traps are also known from sites across the Arabian Peninsula including western Saudi Arabia, Jordan, Egypt, and the UAE, where one was discovered in Wadi Al Hilo, Sharjah, by staff of the Breeding Centre for Endangered Arabian Wildlife during a field survey in January 2008. According to tourism websites, similar traps found in the mountains of Sinai are known as nosret al-nimr.

Margaba consist of an elongated chamber constructed of rocks and large stones, with an entrance at one end. Bait is placed at the other end, tied to a rope attached to a flat stone above the entrance. When a leopard pulls the bait, the stone falls and closes the trap. The external dimensions, based on three examples measured in Yemen and one in Sharjah, are – length: 275-300cm; width: 45-60cm at the entrance, widening to between 75-100cm; height: 55-60cm at the entrance rising to 120cm. Inside, the short entrance section is narrow and about 35-45cm square so as to keep the size of the 'door stone' to a minimum. The main internal space then widens out so that the trapped leopard can turn around, facilitating its transfer to a cage.

It seems that these traps have been used since ancient times to catch and kill leopards and other predators of domestic livestock. A smaller version in Sinai was reportedly designed to catch wolf and caracal and at least one striped hyena has been trapped in Wada'a. Wada'a is the only place where any detailed information is available and the only one where villagers specialised in live-trapping leopards for display. In December 2007, two Wada'a leopard trappers said they had caught ten and four leopards respectively. Once captured, leopards were carried back to the village in a steel box and formerly transported to a small menagerie in Sana'a where they were put on display, or sold to zoos in Sana'a and Ta'izz,



Fig 1 Cage for holding captured leopards at Wada'a in Yemen (©Jane-Ashley Edmonds).



Fig 2 Stone entrance to leopard trap at Wada'a (©Jane-Ashley Edmonds).

while some probably ended up on the private market. Previous visitors to Wada'a report that some captured leopards may be killed and their fat used for medicinal purposes to cure rheumatism and skin disease.

The Government of Yemen has banned the live capture of leopards. Staff at Ta'izz Zoo reported in December 2007 that they received the last animal from Wada'a in 1999 and that they no longer bought wild-caught individuals, while the community in Wada'a have ceased trapping and expressed a strong desire to conserve the remaining leopards in the area.



Fig 3 Stone leopard trap viewed from above at Wada'a (©Jane-Ashley Edmonds).

WHAT'S NEW IN THE LITERATURE

Arthropod Fauna of the UAE Volume 1.

Antonius van Harten
ISBN 978-9948-03-642-5

The objective of the UAE Insect Project was to try and obtain as complete an inventory as possible of the terrestrial and aquatic arthropods occurring in the UAE. In 2005, van Harten as part of his preparation for this book, found only 830 species of insect recorded for the UAE.

As a result of his successive work, five new genera, 83 new species and 4 new subspecies have been included. Of the 79 families dealt with in the book, 43 had not been previously recorded in the UAE. This first volume contains only about 25% of contributing taxonomists work and only about 30% of families collected have been covered. Descriptions, identification keys, plates and figures are included to help future zoologists and entomologists that might work in the region in their identification process.

Examples of families covered include Psocoptera commonly known as booklice, barklice or barkflies. Up to the current publication only a few occasional records have been published from the Arabian Peninsula resulting in 13 species being previously recorded for this location. In the book 31 species were recorded from the UAE all being new and only three of the 31 species were reported before in the Arabian Peninsula.

The Histeridae, commonly known as clown beetles or hister beetles, had not been previously reported from the UAE so all those recorded were new to the country. 28 species were collected of which several are new to the Arabian Peninsula and three species and one subspecies appear to be new to science.

More commonly described species, for example, the Elanteridae or click beetles still had many gaps to be filled. Until 2005 there were only 5 species known for the UAE. Following the study, 23 species were described of which 18 were new to the UAE (although in the text only 17 were stated).

Another example would be from the family Coccinellidae (ladybird-beetles) where up until the study only 3 species were recorded in the UAE. Following this publication another 22 species were identified and 21 of these were new to the UAE.

Interestingly Rücker (Latridiidae) suggests that the fact that there were 4 genera and 12 species of the Latridiidae which are mycetophagus species is remarkable due to the dry nature of this country. Contrary to that, the Chrysomelidae leaf beetles were noticeable by the fact that there were recorded in low numbers. It was suggested that this could be due to the collection methods adopted. As a result of the Insect Survey six species and one sub species of this family were identified.

Altogether this is a very valuable book for any entomologist in the region. A total of 570 species are reported in this volume. We look forward to forthcoming volumes which will deal with the remaining families.

Reviewed by Declan O'Donovan

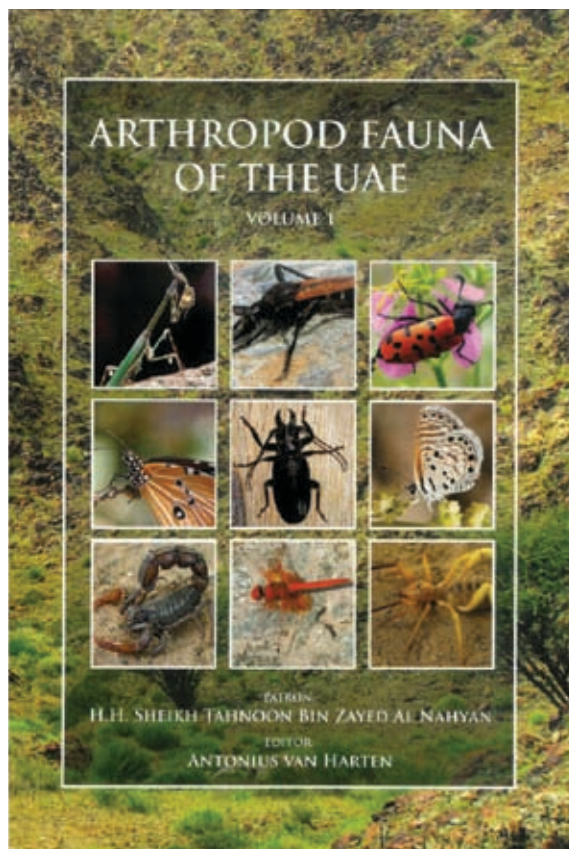


Fig 1. Arthropod Fauna of the UAE Volume 1.

Recent Scientific Papers

Kilgallon C, Bailey T, Arca-Ruibal B, Misheff M, O'Donovan D (2008) Blood gas and acid base parameters in non-tranquilised Arabian oryx (*Oryx leucoryx*) in the UAE. *Journal of Zoo and Wildlife Medicine*: Vol. 39, No. 1 pp. 6–12.

Saud Anajariyya (2008) Twenty years of Arabian oryx captive-breeding and conservation program in Saudi Arabia. *First International Wildlife Reintroduction Conference Applying Science to Conservation*, April 15-16, 2008, Lincoln Park Zoo, Chicago, IL USA

Andrew Spalton, Salah Salim al Madhdouri, Yasser Hamdan al Kharousi (2008) The Arabian Oryx Project, Oman. *First International Wildlife Reintroduction Conference Applying Science to Conservation*, April 15-16, 2008, Lincoln Park Zoo, Chicago, IL USA.

Abstracts or full versions of these are available for download as a pdf at the [wmenews website](http://www.wmenews.com)



NEWS & EVENTS

The 9th Annual Sahelo-Saharan Interest Group meeting held in Al Ain

Tim Woodfine

Marwell Preservation Trust, Colden Common, Winchester, Hampshire, SO21 1JH, UK.
E-mail: timw@marwell.org.uk

The Sahelo-Saharan Interest Group (SSIG) is a network of individuals and institutions with a common interest in the conservation of the wildlife of the Sahara and bordering Sahelian grasslands. The group brings together people from many backgrounds and disciplines including governmental agencies, research establishments and other conservation practitioners.

SSIG was established following a meeting organised by the Convention on Migratory Species (CMS) in Djerba, Tunisia, in 1998 to adopt an action plan for endangered Sahelo-Saharan antelopes. The group first met in 2000 at Marwell Zoological Park in England and has continued to meet annually ever since and stays in contact via a dedicated list-serve. While species such as the scimitar-horned oryx, addax and dama gazelles continue to be an important focus for conservation action, the SSIG network now addresses a broad spectrum of Saharan biodiversity.

Importantly, the regular meetings and ongoing dialogue between members of SSIG has led to numerous collaborations in the field. A significant initiative was the formation of the Sahara Conservation Fund (SCF), the first international non-governmental organisation dedicated to conservation in this part of the world. As part of its remit, SCF facilitates annual SSIG meetings.

With obvious bio-geographical and cultural links between the Sahelo-Saharan region and the Middle East, this years' 9th Annual SSIG meeting was held at the kind invitation of the Al Ain Zoo in the United Arab Emirates. Alongside sponsorship of the event itself, Al Ain Zoo was generous enough to provide travel bursaries for representatives from several North African countries to attend the meeting, including delegates from Algeria, Mauritania, Morocco, Niger, Senegal and Tunisia.

The meeting comprised two days of presentations and discussions, followed by two further days of excursions. Proceedings began with an impressive line-up of local speakers, collectively demonstrating the great commitment of governmental and non-governmental organisations to the monitoring and management of biodiversity in the UAE. Thereafter, there were presentations on conservation activities undertaken in several Saharan countries and on a range of topics including species conservation, protected area policy, and on biological surveys and monitoring.

The final session was dedicated to a discussion on the future of the scimitar-horned oryx, a species that became extinct in the wild, but that is held in large numbers in the UAE, as well as in zoological collections across the world and on Texan ranches. Reintroduction efforts are gaining momentum with initiatives underway in Tunisia, Morocco and Senegal, and with potential for further work elsewhere in the Saharan region. With the current global custodians of these animals and delegates from former range states present, the SSIG meeting presented a unique opportunity to exchange information and ideas amongst these stakeholders. The session concluded with a consensus to produce a coordinated global strategy for scimitar-horned oryx to help set and articulate reintroduction goals.

There were further opportunities for delegates to exchange ideas and information during the subsequent two days of excursions which included visits to the Arabian Oryx Reintroduction Project at Um Al Zumoul, the Breeding Centre for Endangered Arabian Wildlife, Sharjah and to HH. Sh. Butti Maktoum's Wildlife Centre. Indeed, it proved to be a very productive few days not only highlighting common interests, but hopefully acting as a catalyst for ongoing dialogue and cross-regional wildlife conservation initiatives.

For more information on the Sahara Conservation Fund and SSIG, including proceedings from previous meetings please visit www.saharaconservation.org

Avian Endoscopy Workshop

On May 3rd 2008 the first Avian Endoscopy Workshop was held in Dubai by Dr Chris Lloyd and Dr Tom Bailey as part of the Middle East Veterinary Congress. The workshop was sponsored by Karl Storz who supplied 5 new "Telepac" mobile endoscopy units for the session. Further avian and exotic animal endoscopy sessions workshops are planned for the region. For more information contact the editors.



Figs 1. Reintroduced scimitar-horned oryx in the Dghoumes National Park, Tunisia (©Tim Woodfine).



Figs 2. Reintroduced scimitar-horned oryx in the Dghoumes National Park, Tunisia (©Tim Woodfine).

