

TRIBULUS



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NOTES FOR CONTRIBUTORS

TRIBULUS is the Journal of the Emirates Natural History Group. The Group was founded in 1976, and over the next fourteen years, 42 issues of a duplicated Bulletin were published. The format of TRIBULUS, launched in 1991, permits the inclusion of photographs, not previously possible.

TRIBULUS is published twice a year. The aim of the publication is to create and maintain in standard form a collection of recordings, articles and analysis on topics of regional natural history, heritage and archaeology, with the emphasis on the United Arab Emirates and adjacent areas. Papers, short notes and other contributions are welcomed from anyone but should not have been published elsewhere. Guidelines are set out below. The information carried is as accurate as can be determined, but opinions expressed are those of the authors alone.

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The plant motif above is of the genus *Tribulus*, of which there are six species in the UAE. They all have pinnate leaves, yellow flowers with free petals and distinctive five-segmented fruits. They are found throughout the country, except in coastal *sabkha*.

The animal motif above is of a tiny golden bull, excavated from the early Second Millennium grave at Qattarah, Al Ain. The original is on display in Al Ain Museum, and measures above 5 cm by 4 cm.

Manuscripts should be typed, on one side only, and double-spaced, and should be accompanied by a disc for material in excess of 500 words in length. A short abstract should precede the article, with the address(es) of the author(s) at the end. Submissions may be made electronically.

Photographs may be submitted and should be either glossy black-and-white or colour prints or colour slides, which should be clearly captioned. Line drawings and maps should be in black ink on strong white or translucent paper.

References should give the author's name, with the year of publication in brackets, and with the list of articles, showing title and publisher, in date order.

Scientific names should follow customary nomenclature in Latin, while the English and, if appropriate, available local Arabic names should also be supplied.

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Cover illustrations:

Front: **Socotra Cormorant** *Phalacrocorax nigrogularis* . (See P.5)

.....**Picture by Hanne & Jens Eriksen**

Back: A modern stone-built fox-trap in the Hajar Mountains, Ra's al-Khaimah

.....**Picture by Mark Beech**

The Editorial Board of TRIBULUS and the Committee of the Emirates Natural History Group acknowledge, with thanks, the support of the Group's Corporate members, a full list of whom can be found on Page 4, without whom publication in this format would be impossible. We also acknowledge the support and encouragement of our Patron, H.E. Sheikh Nahayan bin Mubarak Al Nahayan, the U.A.E. Minister of Higher Education and Scientific Research.

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EDITORIAL

As promised, this issue of *Tribulus* offers a broad range of topics, to compensate for the special archaeological focus of the last issue. The Editorial Board is pleased to note that on this occasion not only are we able to welcome new contributors, but to deal with topics that have not previously received much attention in the journal. *Tribulus*, like the Emirates Natural History Group itself, has always sought to address a fairly broad range of topics, ranging from archaeology and history to palaeontology, geology and the whole of the disciplines covered by the term 'natural history.'

It has done so, in part, because of the scope of the ENHG, its publisher, but continues to do so because, over a decade after the journal began, there is still no other scientific journal in the English language that is devoted to these topics within a UAE context.

Papers in UAE topics do appear in journals overseas, of course, but rarely reach much of an audience in the country itself. It is the belief of the Editorial Board that not only is the publication of scientific research itself of importance, but also that such research should be made available to those fellow researchers who live and work in the country concerned.

Sadly, thirty years after the formation of the UAE, there is *still* insufficient attention being paid by Government bodies to scientific research, although, to be fair, the situation is better now than it was a decade or so ago. We look forward to seeing this matter being addressed properly in the near future. The formation of a special federal or local body to assess and to fund scientific research proposals might well be a way forward, and would certainly be one that we would welcome.

To the topics in this issue.

Of particular interest is the paper on the phylogenetics of the Socotra Cormorant, a near-endemic of the Arabian Gulf. This sheds light for the first time on its relationship to other cormorant species, and represents an important contribution to the science of ornithology. We would wish that scientists employed by the country's professional bodies might engage from time to time in such detailed work.

Somewhat more mundane, although of equal interest to those interested in the country's birdlife, is the paper on the diet of the Little Owl, which is complemented by another on the diet of the Spiny-tailed lizard or *dhub*. Too little work has been done on the diet of the country's wildlife, yet this is an important aspect of any long-term conservation strategy.

Another paper on the distribution of the Dhofar toad in the Musandam peninsula underlines the fact that much still has to be recorded about the distribution of our wildlife, as well as about its diet and genetics.

Of the above papers, all have authors who have contributed in the past to the journal, Peter Cunningham, co-author of three, Simon Aspinall, of two, and the indefatigable Gary Feulner. We are pleased, though, to

welcome Martyn Kennedy and Roderic Page, lead and third author of the Socotra cormorant paper, to the journal for the first time.

Another new author to appear in this issue is Ronald Hawker, whose review of the traditional 19th and early 20th Century domestic architecture of the country not only breaks new ground for the journal, but also for the study of these important buildings, far too many of which have disappeared in the last twenty or thirty years.

A third new author, Peter Hogarth, joins Mark Beech, a regular contributor, as co-author of a short note on the discovery (on a dinner table) of a species of crab not previously recorded in the emirates except on archaeological sites, providing evidence once again not only of the fact that it is worth keeping an eye on dining tables (and the souq) in the search for new information, but also of the way in which archaeological work and the study of today's environment and wildlife can be mutually beneficial.

Despite the pledge in **Vol. 11.1** to focus on issues other than archaeology, there is, however, one paper on the subject, with Gareth Longden and Salvatore Garfi reporting on work on a Late Islamic fort at Qurayyah, in Fujairah. This project was partly funded by the ENHG's Conservation Fund, and we are delighted to be able to report the results. Further work in the vicinity of the fort has been undertaken since this paper was written, revealing new information about settlement in the Qurayyah area, and we look forward to being able to publish a summary report in due course.

Finally, the Editorial Board is delighted to welcome Michael Gallagher to the Journal's Advisory Board. Long active in Oman and the UAE, although now retired to England, he is not only a highly respected ornithologist, but very much an all rounder, as his bibliography suggests. His expertise and his contribution to knowledge of the natural history of Oman and the UAE can be simply attested by the numerous species or sub-species of invertebrate, reptile, mammal and plant endemic to the area have been named after him.

The introduction of our Advisory Board several years ago has helped to enhance substantially the academic quality of contributions appearing in the journal. We are grateful to the Board members, as well as to others who provide blind peer reviews of papers, for their assistance and support.

New contributors are always welcome, and should not be discouraged by the presence of the Advisory Board! Its task, as well as that of the editorial team, is primarily to assist in ensuring that original observations and studies come to print. As such, the objective is to provide shrewd and accurate editorial advice, which, if necessary, will also include advice on how papers and short notes submitted can be enhanced so as to bring them up to the standard required by the journal.

Corporate Members of the ENHG

Production of *Tribulus*, and many of the other activities of the Emirates Natural History Group, including the grant programme of the Group's Conservation Fund, would not be possible without the generous support of the Group's Corporate members, many of whom have provided consistent assistance over many years. The Editorial Board and the Group Committee acknowledge, with thanks, the invaluable support of the following companies and bodies, currently corporate members of the Group, and all past corporate sponsors:

Abu Dhabi Company for Onshore Oil Operations, (ADCO), Al Fahim Group, Al Sayegh Richards Butler, British Petroleum, (BP), Denton, Wilde, Sapte, Environmental Research and Wildlife Development Agency, (ERWDA), GAMCO, Hyder Consulting Middle East, Jashanmal National Company, Metco, Mohammed Bin Masood & Sons, Nama Development Enterprises, National Bank of Abu Dhabi, Omeir Travel Agency, Penspen International Limited, Ready Mix Abu Dhabi Ltd, Simmons & Simmons, Trowers & Hamlin, WESC.

A first modern record of the Mangrove Crab *Scylla serrata* in the U.A.E. and south-eastern Arabian Gulf

by Peter Hogarth and Mark Beech

A recent meal in Ra's al-Khaimah led to an addition to the list of crab species recorded from the United Arab Emirates. This was a female of the mangrove or mud crab, *Scylla serrata*. The specimen, when identified, was badly damaged by preparation for the table, but had a carapace breadth of approximately 17.5 cm. This specimen was caught at UTM 393700 E / 2850300 N near the Police Club, Ra's al-Khaimah, UAE, in April 2001. An example of a complete *Scylla serrata* is depicted in Figure 1.

Scylla serrata is a member of the family *Portunidae*, the swimming crabs, in which the tips of the last pair of legs are modified into flat paddles, and reaches a spectacular 22-23 cm in carapace breadth (Guinot 1966), and a weight of 1500-2000 gm (Apel & Spiridonov 1998). The Ras al-Khaimah specimen, although apparently mature, was not unusually large. The species has a strong association with mangroves, where it digs sizeable burrows.

In many parts of the world *Scylla serrata* is an important commercially caught food species, and in south-east Asia is the basis of a developing aquaculture industry (Guinot 1966; Overton & Macintosh 1997).

The species is widespread throughout the Indian Ocean and west Pacific, although there is some doubt about its exact distribution since a number of varieties have recently been reclassified as separate species (Keenan, Davie & Mann 1998). It is known to occur in the Western Indian Ocean, including the Arabian Sea and the Gulf of Oman (Apel & Spiridonov 1998). Until now, its presence in the south-eastern Arabian Gulf has been suspected from anecdotal sightings of large crabs – and there are few species remotely as big – and by occasional reports of burrows. Recent surveys of the Gulf coastline of the UAE failed to identify this species (Al-Ghais & Cooper 1997; Hornby 1997, Hogarth & Beech, *in prep.*). This record is the first confirmation of its occurrence within the Arabian Gulf.

This is somewhat surprising, as it is quite common in archaeological deposits in, for example, Iron Age deposits at Rifaq in the Wadi al-Qawr, in the Hajar Mountains, near Hatta, and Sasanian/Islamic levels at Kush north of Ra's al-Khaimah. At Rifaq the abundance of *Scylla* remains suggests that it was an important food species which was transported some distance into the interior from the coast (Beech 2001; Beech *et al.*, *in press*). These *Scylla* however, are perhaps more likely to have been brought to Rifaq from the East Coast of the UAE, on the Gulf of Oman, to which it is closer, rather than from the Arabian Gulf coast.

Why should a once fairly common species have virtually disappeared from the Gulf? The usual reasons for a species' disappearance are over-exploitation, environmental change, or reduction in suitable habitat. Perhaps the most likely explanation in this case is the loss of much of the mangrove habitat. In past times mangroves were much more widespread. Their use as timber for architecture and boat-building severely depleted mangroves in the Gulf, reducing them in area and diversity to relatively small patches, almost exclusively of the grey mangrove, *Avicennia marina*. Possibly the deliberate replanting of mangroves, such as the extensive programme in Abu Dhabi, will be followed by a resurgence of this spectacular – and tasty – species in the area.

Any further records of *Scylla serrata* would be of considerable interest.

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