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- Wahiba Sands Project
- Oman
- 1985-1987

A geographical investigation to study the early development of the Wahiba Sands (now known as Eastern Sands), its ecosystem and the impact of recent change.

Patron: HRH Prince Michael of Kent

Leader: Nigel de N. Winser, Expedition Officer, Royal Geographical Society

Scientific Co-ordinator: Dr. Roderic Dutton, CORD (Centre for Overseas Research and Development), University of Durham.

Scientific Programme Directors:

Earth sciences: Dr Andrew Warren, University College London

Biological Resources: Paul Munton, University of Canterbury at Kent

Economic and Human Geography: Dr Roger Webster, University of Exeter

Number of members: 40

Duration: 5 months, 1 December 1985 - 22 April 1986

Studies of complete sand seas are rare. The Wahiba Sands, described as a "perfect specimen of a sand sea" is a small isolated 15,000 km² desert comprising a great variety of dune formations representing stages of its evolution over millions of years. Its position and size lend it to field research, simply because it can be studied as a complete unit.

The ruler of Oman, His Majesty Sultan Qaboos bin Said, through his government ministries, has a positive approach to policies of integrating conservation and development projects. To quote: "Our plans for development must be based on facts; facts about our resources, our environment, our ecosystems and facts about how we, as human beings exist in interrelation-ship with the wild plants and creatures who share God's earth with us." Because of this attitude, the Diwan of Royal Court gave substantial support to the Project, funding researchers and publications.

In consultation with Ralph Daly, the Conservation Advisor of the Diwan of Royal Court, the project identified five objectives, each integrating earth, life and human science disciplines:

- (1) the sedimentary and geomorphological history of the Sands;
- (2) sand movement, moisture and vegetation;
- (3) biological resources and range management;
- (4) the indigenous communities and their interrelationships;
- (5) oil wealth and local development.

To achieve these set aims, the project liaised closely with representatives from all the key ministries through an Oman Co-ordinating Committee chaired by Colonel Khamis bin Mohammed Al Amry. The project

also benefited from considerable ground, air and sea logistic support from the Sultan of Oman's Armed Forces. Regular meetings and workshops both in the field and the capital area ensured a flow of information and comment. Visits by students from local schools were arranged and a series of publications for use in both Omani and UK schools have since been prepared in co-operation with the Ministry of Education and the BP Education Service.

A central headquarters 'Taylorbase' was sited on the northern edge of the Sands just outside the village of Mintirib. This magnificent camp, built in a fortnight by Taylor Woodrow-Towell, accommodated 40 people and had laboratory, computer, radio, workshop and other facilities to help with fieldwork in the desert. A Field Base was established on the eastern margins of the sand and a number of mobile bases were set up at key sites in the Sands. Specially prepared Land Rovers with satellite navigators, and occasionally camels were used to move around the Sands. The use of IBM computers enabled the project's first 500-page *Rapid Assessment Document* to be completed and handed over to the appropriate Ministries before the project left Oman.

This report confirmed that the Sands are both unique and of special interest on a national and international basis. For example, the aeolianite rock, which underlies much of the modern dunes, is the most extensive anywhere in the world. The Sand's marine margin is an unusual feature, both as a rich fishery actively exploited by fisherman 'bedu' living in small settlements along the shore, and as a food source for the large and varied migrant bird population along the mudflats bordering the Bar al Hikman. The *Prosopis* woodlands are also a feature of great interest. Many of the trees are clearly old and well established but there is little evidence of regeneration today. Yet the *Prosopis* is a

major forage resource and the woodlands are of great ecological importance, in addition to being 'home' for a high proportion of bedu in the area. The Project identified the parasites preventing *Prosopis* growth, and established this and other species as important candidates for arid land vegetation. Although the rangeland is dominated by a few plant species, a total of over 130 species were identified from the Sands and their margins.

The Sands' fauna proved to be of special interest in its adaptations to desert survival. The Sands form a natural refuge for many animals, such as gazelle, Ruppel's fox, the sand cat and white-tailed mongoose, to escape predators, including man.

The team studying the people of the region found that they have evolved an economic and social way of life in keeping with their environment and have adopted environmentally-sound ways of exploiting local resources. However in recent years, the advent of oil wealth has brought change. Much of this is beneficial and comes in the form of governmental support and remittances, but it diminishes the inhabitants' dependence on local resources with a consequent lessening of interest in using them with traditional skills and wisdom.

The results of this work have been presented at international conferences in Muscat and London, and are published together as a special volume (no. 3.) of the *Journal of Oman Studies*.

Major sponsors included:

The Conservation Office of Diwan of Royal Court Affairs, the Sultan of Oman's Armed Forces, Assarain Enterprise, Gulf Air, Land Rover Ltd., Mohson Haider Darwish, Racal Electronics, Suhail and Saud Bahwan, Taylor Woodrow-Towell, Zubair Enterprises.



Further reading:

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OMAN WAHIBA SANDS PROJECT 1985-1987

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