

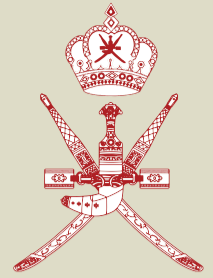


The National field research
centre for environmental
conservation

Nov. 2015 - MuHarram1437

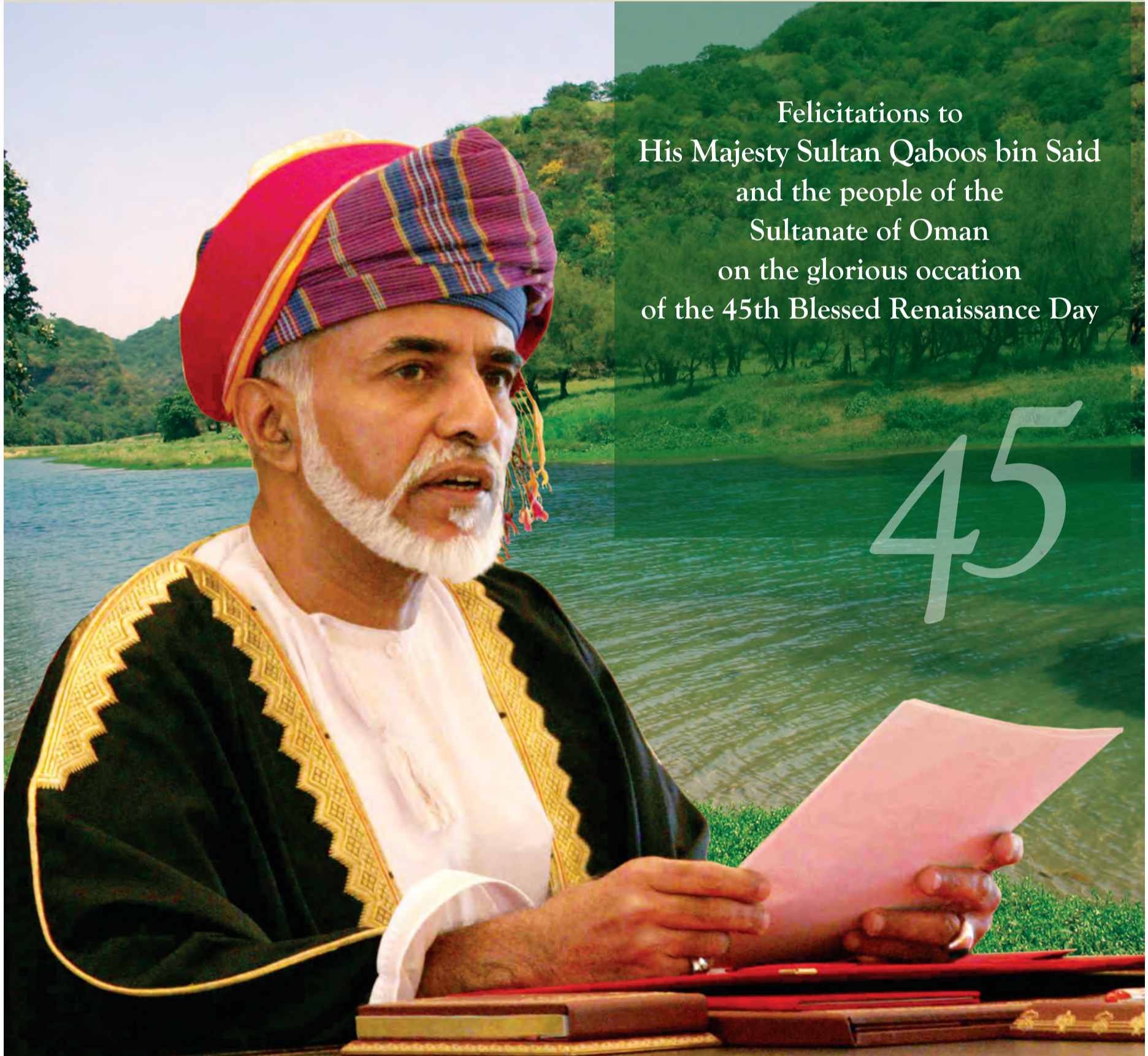


Environmental monthly newsletter issued by the National Center for field planning in the field of environmental conservation



Sultanate of Oman
Diwan of Royal

Issue 2



Felicitations to
His Majesty Sultan Qaboos bin Said
and the people of the
Sultanate of Oman
on the glorious occasion
of the 45th Blessed Renaissance Day

45

Protecting the Environment - A Collective Responsibility

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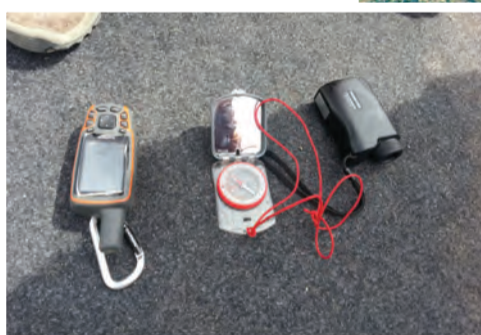


Students of Nizwa university get training in scientific eco-research

The Mobile Environment Research Unit (MERU) of the National Field Research Centre for Environmental Conservation in cooperation five students from Nizwa University for four days in Al Saleel Natural Park to enrich their environmental learning experience with various field activities.

The students learnt about camping in tents at the mobile unit and were briefed about safety guidelines and rules to be adhered to in field work. They were also instructed on how to set up various types of traps for big and small mammals, as well as how to inspect the traps and undertake tracking of the trapped animals.

Al Saleel Animal Park is located at the northeastern of Al Kamel and Al Wafi in South Sharqiyah with total area of 220 km². It is one of the most important natural reserves for con-



serving the bio-diversity in Oman. The Park has vast areas of steppe lands covered with Prosopis juliflora and Acacia tortilis trees, and is a safe area for wild animals such as Arabian gazelle, Arabian ibex, wild foxes and hares.

Viewpoint

Dawood Bin Suleiman Al-Balushi
dskbaloooshi@diwan.gov.om

Royal Attention to the Environment

The Sultanate entertains currently the joy of celebrating the 45th National Blessed Day with a great resolve to secure a bright future under the wise leadership of His Majesty Sultan Qaboos bin Said, May Allah keep and protect Him. HM was the first person to establish the foundations of security, safety and peace in our dear country. It is the basis for the successful rally of environmental efforts in the Sultanate. Thanks to the judicious vision of HM, the foundations and dimensions of environmental work in the Sultanate were deeply established. The Sultanate has made unique important achievements in this field considering that it is one of the most basic constituent for economic and social development. The environmental work became a main pillar for serving all aspects of sustainable development.

The continuous Royal attention to the environment has enabled the efforts of setting the legislative and institutional foundations for environmental works in the Sultanate. Royal Decree no.: 74/34 issued in 1974 on controlling the marine pollution has constituted the first nucleus for legislative structure in the environmental field.

This was followed by Royal Decree no.: 79/68 on establishing the "Environmental Protection and Pollution Control Board" that was honored by the leadership of His Majesty. Moreover; the Sultanate is the first Arab country to establish a Ministry for Environment in 1984 AD.

Sultan Qaboos Prize for Environmental Protection introduced in 1991 as the first Arab prize in the environmental field worldwide constitutes a tributary of HM's bestowals for the international environment and His Royal attention to it. In addition, 2001 and 2002 were specialized for the Omani environment.

HM has granted a prize for the Human and Environmental Affairs Sector at the Secretariat General for the GCC Countries during the 29th session of it Supreme Council (held in Muscat in December 2008). HM the Sultan has issued many royal decrees setting frameworks for the laws and regulations that ensure protecting the human being and the environment surrounding it. In addition, Royal Decrees were issued promulgating the establishment of nature reserves in the Sultanate. Oman has also ratified many international environmental agreements, pacts and protocols that contributed into extending the collaboration bridges between the Sultanate and the countries of the world to achieve good and prosperity for humanity at large.

The generous care paid by HM the Sultan to the environment and His direct attention to it confirms to us that the environmental cours will prosper and be developed continuously. The governmental entities exert all their efforts to carry out the projects of protecting and conserving the Omani environment in all aspects, in collaboration with the private sector establishments, civil community institutions and individuals. Therefore; we have every right to boast and take pride in the environmental national achievements made in the Sultanate thanks to the judicious vision of HM and his complete care to make the environmental development accompanied by the economic and social development to achieve the sustainable development concept in all the development projects.

May Allah protect HM and grant Him happiness, health, well-being and long age.

General supervision

D. Saif bin Rashid Al Shaqsi

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Dawood bin Sulaiman Al Balushi

Editorial Board

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Zakaria Mawali

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To communicate with
the center

Tel: 24941044 - Fax: 24941030

nfrcec@diwan.gov.om

www.Alwashaq.com



@Alwashaq_oman



alwashaq.oman



alwashaq.oman



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NFRCEC accords top priority to field safety

Edited By : Issa Alsamsami

The National Field Research Center for Environmental Conservation (NFRCEC) pays considerable attention to identifying and developing the field research projects for environmental protection and sustainability in the Sultanate.

The centre seeks to conserve the environment and encourage the relevant academic and civil community institutions, researchers and interested stakeholders to perform serious distinguished environmental studies and field researches. It also seeks to spread environmental awareness, as well as building real partnerships between the local community and the surrounding environment.

Based on this, the Centre gives top priority to setting field safety standards for the NFRCEC's researchers and participants of the projects, as the nature of research works involve dealing with settings that are classified as danegrous.

Therefore; the Centre has prepared a handbook on this regard.

Measures and Prevention

The NFRCEC's field safety manual was primarily prepared with the objective of providing the employees and scientists of the centre with a mobile manual to use it in their field visits and to guide them in their acts with a view to complying with the field safety.

The centre takes preventive measures before embarking on any project or field research visit through conducting deliberate practical evaluation for potential risks. It also provides adequate data for all participants in the form of clear, written instructions that includes the conditions of the project and the risks accompanying it. The NFRCEC is always committed to ensuring the safety of its employees and all individuals participating in all the activities, events and projects carried out by the centre in various parts of the Sultanate. Risks are indivisible part of the environment in which researchers work. However; through careful management of risks, and precise planning the safety of individuals is ensured. This results in the participants getting a fruitful and motivating environment for academic experiments.

Basics of Field Safety

The provision of safe drinking water in all the places of research, and securing a suitable accommodation for all participants are the most significant basics. The centre also pay considerable attention to train and qualify the field team on all emergency procedures through setting detailed emergency response plans for every project in advance and training the staff. In addition, the staff must include a team that is trained in dealing with different field injuries.

The centre stresses on comprehensive instructions that reflect the risk management and understand the nature of the project, atmosphere and participants well.

Also the centre works to ensure that the participants have understood the safety instructions clearly and unequivocally, and the person in charge must be informed of any critical moment in which one feel that his life or the lives of other participants are endangered. The staff should know and understand the emergency response plan well. They should also be identified with the driving requirements and comply with them. Unsecure vehicles are to be rejected, the guideline says.

Emergency Cases

The handbook includes an explanation about how to behave in the emergency cases. First of all, the participant should pay considerable attention to personal safety. If he neglects his safety, he would not be able to help or support the others. He should be well aware about the numbers of local emergency services and call such numbers immediately if an emergency case exists. In addition, the participant should provide the first aid when necessary. The injured person should take some procedures the first of which is to call the on-duty official, introduce himself, determine his location and give a brief summary about the incidents. After that, he should identify such official with the details of the incident and injuries, the instructions say. Providing first aids is the real way to



The NFRCEC is always committed to ensuring the safety of its employees and all individuals participating in all the activities, events and projects carried out by the centre in various parts of the Sultanate.

ensure safety. Therefore; it should be ensured that such first aids do not threaten the life of the person or the other persons surrounding him. The participant should know the awareness level of the injured person. He should also check his ability to breath and that there is no bleeding. The heart pulses should also be checked. If the injured is aware, he may be left on this status till the assistance team arrives. In the meantime, his companion should speak with him, be identified with his past medical history in details to convey it to the emergency services providers.

If the injured person is not conscious but breathes naturally, his companion should hospitalize him and open his airways through tilting the head and raising his chin up. On the other hand, if the injured person is not aware and could not breathe naturally, his companion should help him breathing appropriately till the assistant medical team arrives.

The NFRCEC strives always to ensure the field safety of all researchers and visitors of the projects. It endeavors to instill the spirit of field work in them and make them acquire the correct academic ways of scientific research in various environmental sites so as to facilitate the research methods for them and ensure their safety at work to protect their health.



Environmental education

as an international tool

for sustainability & development

Millions of trees die in California drought, posing wild fire threat.

California's drought led to the deaths of 12.5 million trees in the state's forests last year, leaving behind huge amounts of dry fuel that could burn easily as the summer wildfire season begins, the U.S. Forest Service said Monday.

The dead trees, visible from the air as red patches in the forest, were weakened by drought and in many cases then killed by bark beetles, which have infested the state's forests and thrive in the warm, dry conditions.

"In some places, we had 100 percent mortality," said Jeffrey Moore, a biological scientist with the Forest Service whose team mapped the dead trees by airplane last month.

The Forest Service report, which was released on Monday, included aerial surveys of about 8.3 million acres throughout the state.

The Forest Service has been closely tracking tree deaths since the start of the drought, now in its fourth year.

Environmental education is one of the main activities of the National Field Research Center for Environmental Conservation (NFRCEC), established by Royal Decree No (542009/) issued on October 6, 2009. The Centre has developed various field research programs, designed school curricula and held conferences, seminars, workshops and other events to raise environmental awareness, in collaboration with stakeholders.



The center supports the Ministry with data, expertise and experts, and has close working relationship with the Directorate General of Curricula.

Environmental education is one of the tools used internationally in the area of sustainability and development. The Sultanate has adopted this tool as a means to control present and future risks faced by Omani environment through strengthening the bonds between Omani citizens and their environment by encouraging field research and instilling in them a sense of belonging with nature.



Bushra Al Wahibi

Oman adopted environmental education to avert potential negative environmental impacts and to bring up an educated generation capable of realizing the importance of natural resources and their conservation without compromising development.

Here are some excerpts from a dialogue with Bushra bint Khalfan Al Wahibi, a specialist at NFRCEC:

Areas of cooperation in environmental education

Bushra bint Khalfan Al Wahibi confirmed that in spite of the fact that environmental education is a new field in the sultanate at the academic and applied levels alike, it has crystallized in the form of fruitful cooperation between the Ministry of Education and various NGOs such as Oman Environment Association and the



private sector. The cooperation aims to identify and bridge gaps in Omani curricula on environmental issues. There is also close cooperation among institutions concerned with environment, including NFRCEC and the Ministry of Education, to disseminate environmental concepts and methods of environmental field research among schoolchildren.

Methods of environmental education

Al Wahibi pointed out that there are two parallel routes adopted for education based on investigation and critical thinking. The first is to provide the Directorate General of Curricula with right and updated environmental information that can be incorporated into various curricula. The other is to work with schools and local communities to spread knowledge, and link the student fraternity with the surrounding environment so as to bridge the gap (created by technology) between man and environment.

She said the center coordinates with the ministry by providing it with necessary tools needed to introduce the Sultanate's wildlife and to promote research capabilities for environmental projects undertaken by the ministry. The center also organizes field trips for students and teachers encouraging them to explore their local environment and training them to monitor, document and preserve samplings, she added.

Sultanate's experience

Regarding the Sultanate's experience in environmental education, Bushra bint Khalfan Al Wahibi said, "The west paid attention to threats to their environment after long decades of industrial revolution. It discovered the extent of damage inflicted on the environment. We are part of this world but we are not literally an industrial country. We witness fast-paced development and realize that it is not without paying environmental price. We learnt from previous experiences and paid due attention to the environment from early on, and adopted environmental education to avert potential negative environmental impacts and to bring up an educated generation capable of realizing the importance of natural resources and their conservation without compromising development.

Al Wahabi noted that we as human beings are able to preserve the environment, and we have to spread environmental awareness by all means starting from one's family and community to academic institutions and businesses in order to play our part in protecting our planet.

NFRCEC participates in GLOBE OMAN event

In conformity to its role in spreading environmental awareness, the National Field Research Center for Environment Conservation (NFRCEC) participated in the 4th Student Meeting of Globe Oman, organized by the Ministry of Education at Yeti Beach, Muscat. Around 200 students from Oman and other Arab countries as well as scientists and professionals working in the field of environment from various institutions in the Sultanate took part in the event.



The scientific team at the NFRCEC for this event

Researchers offer valuable insights on Oman's bio-diversity and research at Globe Oman

At the event, NFRCEC, roped in a team of researchers who offered valuable insights on bio diversity in Oman and field research methodology. The group also briefed students and supervisors on the wildlife in Oman, and the importance of its natural reserves and the rare flora and fauna. They explained the projects conducted by NFRCEC and its role in developing national cadres in field eco-research.

The event was part of NFRCEC's environmental awareness program in the Sultanate aimed at establishing principles and foundations of conserving the Omani environment and preserving its resources.

NFRCEC has since its inception undertaken a number of programs and activities in the field of environmental education, including distribution of Bag

Environmental Education in some governorates in cooperation with the ministry of education, field trips for schoolchildren and arranging conferences and other initiatives aimed at different sectors of the society.

GLOBE OMAN program consists of a number of activities aimed at developing research database and environmental field studies. Conferences, symposiums and local, regional and international workshops on various aspects of environment as well as competitions for schools are held under the program with the aim of promoting environmental awareness and responsibility. It employs internet technologies to facilitate research and communicate with peers around the world. The program also helps develop among students and youths principles of team work, and self-learning.



Another highlight of GLOBE OMAN is its project focusing on atmosphere, water, soil, land cover, and phenology, bringing under its fold 30 schools across the governorates of the Sultanate in 2014-2015.

According to NFRCEC researcher Fatima Al Zidjali, NFRCEC's first time participation in GLOBE OMAN benefitted the student community greatly. The center's contribution included presentation on field researches on the Yeti vegetation cover, and ways to make and install traps and cameras for big and small insects and mammals.

At the event she briefed the students on vegetation cover at targeted areas after identifying them by means of satellite imaging. The students learnt about vegetation and land covers, distribution of various plant species, characteristics of plants, significance of soil as land cover and the quality of land cover prevalent in the study area.

Said Al Rashdi of NFRCEC said the team had a new experience in the area of environmental education. The team met students from different countries and successfully instilled among them research skills in the field of environment. He said he is looking forward to participating in more such events as a means to spread environmental awareness and knowledge among stakeholders.

The Sultanate celebrates Turtles Day

The Sultanate recently celebrated World Turtle Day (falling on May 23) to highlight Oman's role in preserving the habitats of sea turtles and introducing five species of turtles living in the Sultanate.

Sea turtles date back nearly two million years. They managed to survive threats from man and nature over the period. Thriving presence of turtles is a healthy indicator of the safety of their marine habitats, and is greatly significant as they assume a key role in marine research.

As part of the Scientific Center Protectorate turtles Ras al Hadd organized various events targeting visitors to the turtle reserve in Ras Al Had, Sur, that included awareness campaigns, educational programs and media activities during the turtle nesting season with the aim of raising awareness of the public about the importance of conserving turtles, encouraging them to discover the fantastic world of turtles, and offering guidelines on how to protect them.

SQU students attends work-and-study week

The National Field Research Centre for Environmental Conservation (NFRCEC) in association with Earthwatch Institute held a work-and-study week for a group of SQU students in Al Saleel Natural Park in Sharqiyah.

The students participated in a live field research facilitated by NFRCEC's Mobile Environment Research Unit (MERU). The students also took part in a number of studies and activities including

survey of deer, gazelles, foxes, ibexes, small mammals, rodents, reptiles and insects using latest surveying techniques. They also participated in a session on preparing traps for small mammals and insects and got familiarized with distant surveying techniques and installing trap cameras for studying various animal species' population density and behavior in the study areas.



NFRCEC studies flora and fauna in Jebel Akhdar



The National Field Research Centre for Environmental Conservation in cooperation with Earthwatch, and with the participation of both the Ministry of Environment & Climatic Affairs and Ministry of Tourism undertook a study of the woodland at Jebel Akhdar. The participants were briefed about the methods and means followed in the study, as well as the human impact

on Jebel Akhdar's environment. A discussion on the key principles of sustainable development and means of developing tourism opportunities in the area was also held as part of the study.

The event also explored methods of collecting and analyzing data on Juniperus trees in Jebel Akhdar, using GIS technology in identifying locations of previously studied trees as well as the human impact on

them. A selected group of Juniperus trees was studied and it was noted that some trees were cut and burned for warming or cooking purposes.

The team also surveyed birds in a randomly selected area extending up to one kilometer and identified its coordinates using GPS technology. The area was demarcated every 100m to watch birds using both naked eye and telescopes to identify their species and groups.

Study explores methods of data collection and analysis using GIS tool

El Niño near-certain to last through summer

The El Niño climate phenomenon is almost certain to last through the Northern Hemisphere summer, the U.S. weather forecaster said, raising the chance of heavy rain in the southern United States as well as South America, and scorching heat in Asia that could devastate crops of thirsty food staples like rice.

El Niño also reduces the likelihood of a busy hurricane season, which lasts from June to November and can disrupt energy operations in the Gulf of Mexico.

In its monthly report released on Thursday, the National Weather Service's Climate Prediction Centre (CPC) said El Niño, a phenomenon which warms sea-surface temperatures in the Pacific, had a 90 percent likelihood of continuing through the summer. In April it estimated the odds at 70 percent.

The Sultanate participates in GCC environment representatives meeting

The Sultanate, represented by the Ministry of Environment and Climatic Affairs, participated in the 35th meeting of the undersecretaries responsible for environmental affairs in the Gulf Cooperation Council (GCC).

The two-day meeting discussed a number of issues, including cooperation with various agencies and programs such as the United Nations Environment Program, Regional Office for West Asia, and the Regional Organization for the Protection of Marine Environment and also the World Bank, in addition to collaboration with friendly countries under the strategic dialogue framework.

The meeting also brainstormed on initiating a study to establish a GCC Environmental Monitoring Center.

TRC approves strategic research program for renewed energy

The Research Council (TRC) Board in its meeting in April approved the final document for the strategic research program on renewable energy.

It also approved the establishment of a research programme on chronic and non-contagious diseases under guided strategic researches grants. The research program was proposed by the Ministry of Health. It also approved TRC's membership at Lindau Organisation (Nobel), which will enable Omani scientist to attend the annual meetings of Lindau, and interact with Nobel Prize laureates. These are expected to considerably support and enhance the council's research efforts.