



The National Field  
Research Centre for  
Environmental Conservation  
About innovative Environmental Research



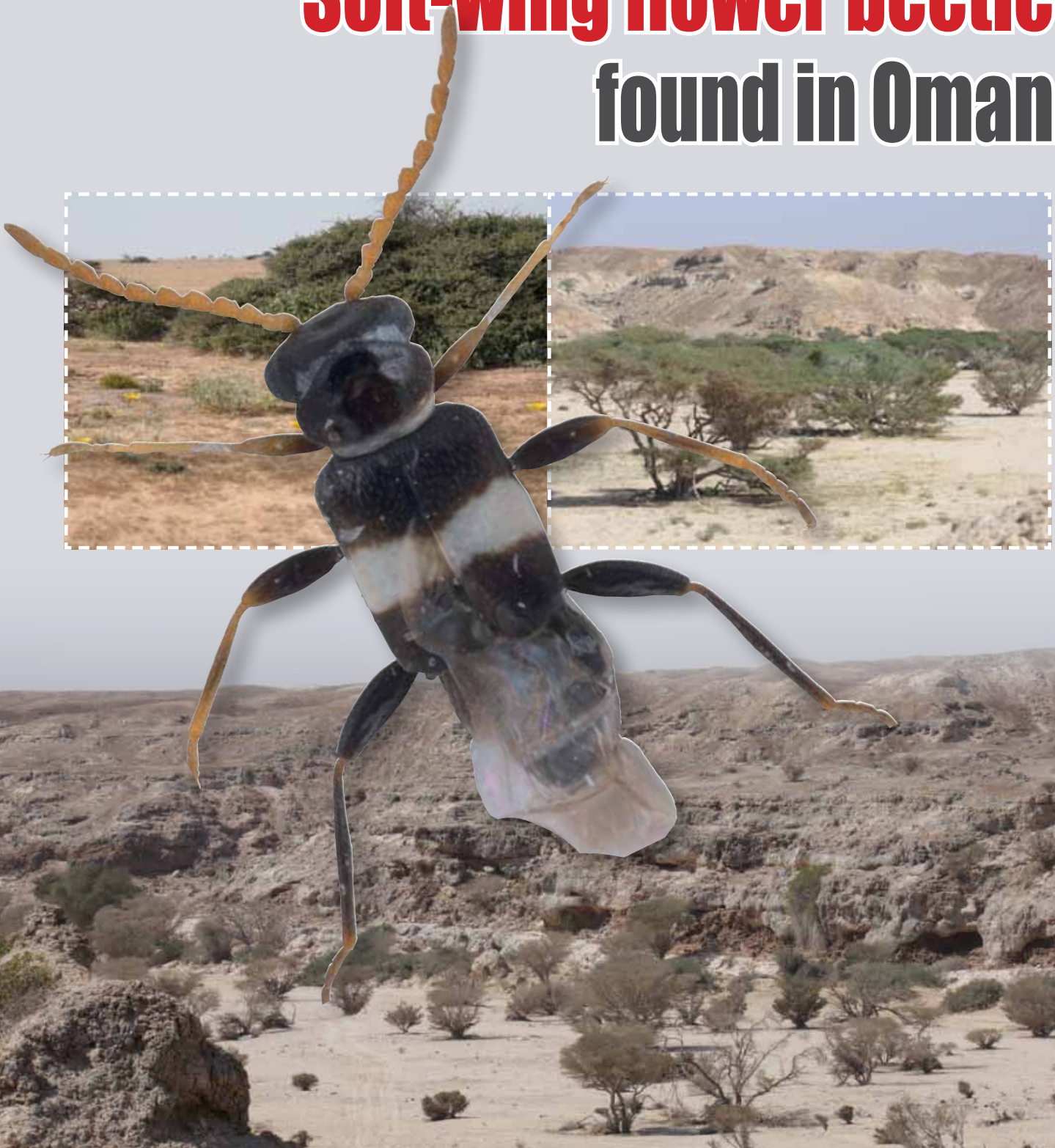
Sultanate of Oman  
Diwan of Royal Court

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Issue 66

# New species of Soft-wing flower beetle found in Oman



## ➤ The Sultanate Joins the World Countries in Celebrating the Regional Environment Day

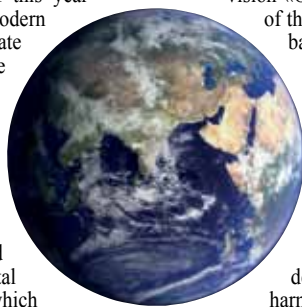
The Sultanate, represented by the Environmental Authority, joined the world countries and participated in the celebration of the Regional Environment Day, which annually falls on April 24. The Environment Authority exerts efforts to educate society about the importance of preserving all aspects of the Omani environment including protecting marine environment from pollution, through continuous communication with the competent authorities to discuss the causes of marine pollution in the Sultanate, how to deal with it and the partnership between society and other parties for preserving the marine environment. The 24th of April is the day on which the countries bordering the maritime zone of the Regional Organization for the Protection of the Marine Environment (ROPME) "based in Kuwait" signed the Kuwait Regional Agreement for Cooperation in the Protection of the Marine Environment from Pollution in 1978. On this annual occasion, the organization discusses the work of countries overlooking the marine waters and all other marine activities in the member states that have caused the emergence of more than one environmental problem and the problems of marine pollution from sea sources due to many offshore oil wells, where more than 50 thousand oil tankers and merchant ships pass every year. Among the

most important challenges that the organization is working on are collision and shipwreck accidents, lack of interest in its maintenance, the discharge of liquid waste from refineries or sabotage. According to numerous statistics, there are about 10 million tons of oil leaked annually into the sea, which causes very great damage to the environment. Most of which causes severe damage to many marine organisms, coral reefs and marine plants, especially mangroves. There are many marine organisms threatened with extinction due to that. On the Regional Environment Day, the Gulf countries work on spreading community awareness about the importance of the marine environment and awareness of the dangers of various climate changes, and the necessity of managing marine resources in a way that reduces emissions, by recycling garbage to reduce its size and by ensure the cleanliness of beaches. The Gulf Countries have endeavored to find specialized means that protect the marine environment and protect the wealth found in them, while working to prevent the depletion of wealth caused by exposure to pollution, such as pollution of the Gulf waters, the impact on biological systems and water pollution in areas of fish wealth and coral reefs. In order to combat these environmental threats, stations have been established to receive marine waste.



## ➤ ... And Joins the World Countries in Celebrating Planet Earth Day

The Sultanate joins the countries of the world in celebrating Planet Earth Day, which falls on April 22 of each year. The celebrations of this year coincides with the memory of the Modern Environmental Movement. On this date in 1970, millions of people around the world demonstrated, demanding a healthy and sustainable environment. The years since 1970, have witnessed great steps towards improving environmental work, enhancing societal awareness of the importance of preserving natural resources, organizing many competitions and launching prizes for environmental protection, the most important of which is the Sultan Qaboos Prize for Environmental Preservation which is the first Arab award to be awarded at the global level in the field of environmental protection. This award was established in the year 1989, upon the



generous initiative of His Majesty the late Sultan and with the approval and welcome of UNESCO. The future vision «Oman 2040» emphasizes the importance of the environmental dimension in achieving balance within planning for permanent, continuous and renewable development that meets the needs of the present without sacrificing the requirements of the future. Within its main axes, the vision «Oman 2040» has focused on environmental protection and the preservation of natural resources as one of the government's priorities, in order to achieve the goals of sustainable development and to protect people from harmful environmental impacts, in addition to effectively manage the environment in order to create a safe environment for a prosperous society capable of exploiting economic opportunities and taking advantage of the ingredients of the environment.



point of view

## Environmental Awareness Between Neglect and Infringement

Dr. Dawood Sulaiman Al Balushi  
Editor-in-Chief

The debate raged for a long time between Saeed and Mohammed about environmental awareness in the Sultanate, its concept, fields and methods. The question that revolved around the discussion was: Is there a lack of environmental awareness in the Sultanate? Is the lack of awareness in the Sultanate the reason for what we see as environmentally negative phenomena, such as the over-hunting of wild animals, pollution of beaches, valleys and tourist places and even burning of trees and perennial plants, bulldozing of soil of beaches and valleys, leaving waste, as well as causing all sorts of pollution by industrial installations, crushers, quarries, the unjust use of chemicals in agricultural activities and other environmental problems?

Environmental awareness in its general sense includes three main axes: Environmental Education, Environmental Culture and Environmental Information. Many global environmental organizations have indicated the importance of environmental awareness in any country and emphasized that it is the first basis for environmental work and that by educating all segments and groups of society, we can find solutions to all environmental problems. Those global environmental organizations, also indicated that the human being is the main focus of environmental development in any society, because the human being deals with the ecosystem and directly affects and is affected by it.

The discussion between Saeed and Mohammed arises many environmental issues, as well as the role of environmental authorities in the Sultanate, in addition to the role of other government institutions, private sector institutions, civil society institutions, environmental volunteer teams and individuals, the role of all of these bodies in increasing environmental awareness in the Sultanate, promoting environmental values, and instilling positive, environmentally friendly behaviors. This is in addition to the importance of strictly enforcing and implementing of all environmental legislation and laws, adopting environmentally friendly projects and applying the green circular economy system. All this, if strictly performed and implemented, will lead to achieving the concept of sustainable environmental development.

The truth is that the environmental awareness in the Sultanate is still between neglect and infringement. To get out of this difficult situation, we must pay attention to the concept of environmental awareness and strengthen environmental awareness programs with its three axes. In addition, there should be a round table that brings together all community institutions of all spectrums to develop appropriate solutions and plans for environmental problems, and that the programs, projects and plans of these community institutions, should be arranged in accordance with the «Oman 2040» vision in order to reach the concept of sustainable development for the Omani environment.

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# Steppe Eagle

## at Parts of Dhofar Governorate ..

**The Office for Conservation of Environment of the Diwan of the Royal Court has carried out a specialized field study on one of the birds of prey called the steppe eagle (steppe / desert) within an existing international cooperation with a team of ornithologists from Austria and Germany, and with the participation of the British Omani Society, since 2018 until now. The study aimed at identifying behaviors and tracking the migration paths of this species of eagle in the Sultanate of Oman and the world, collecting various, more accurate and specialized information and data and publishing scientific papers on it to enhance knowledge and environmental awareness, as well as tireless efforts to preserve the vocabulary of wildlife, especially those threatened animals or plants. The preliminary results showed a clear decrease in the number of steppe eagle for many reasons, the most prominent of which is a decrease in food at the feeding sites in the landfills.**

Khalid bin Muhammad Al Hakmani, head of the natural reserves section of the Salalah Environmental Conservation Office and the supervisor of this specialized environmental study, explained: The steppe eagle with the scientific name (*Aquila nipalensis*) and called in English (Steppe eagle) is considered one of the globally threatened birds according to the classification of the International Conservation Center (IUCN) considers the Sultanate one of its natural strongholds during the winter season, as large numbers of these eagles visit various sites in the Governorate of Dhofar where suitable food is available for them. Also,

- Field surveys on Steppe Eagle confirm that its numbers have significantly decreased in the waste landfills in Hakapat at the Dhofar Governorate within one year, with a decrease of 84% until the end of December 2020
- The environmental study aims to track Steppe Eagles' migratory paths and collect more accurate scientific information about this bird of prey
- Steppe Eagles are migratory birds that visit the Sultanate in winter every year

the characteristics of the medium and large eagle are dark brown, while the young often have a white line on the lower length of the wing. While the sex of eagle can only be identified through a blood test, in general males are smaller than females, where the weight of the adult female ranges between 2.3 - 4.9 kg, while the weight of the male ranges between 2.5 - 3.5 kg. These types of birds of prey feed on carrion (dead animals), rodents, medium-sized mammals, other birds, and various reptiles and insects.

Regarding the content of the study, Al-Hakmani said: The steppe eagle study came thanks to a joint work between the Office of Environmental Conservation at the Diwan of the Royal Court and international specialists for the sake of preserving and promoting research and protection of birds in the Sultanate of Oman. We have

worked together since the beginning of the specialized environmental study project in 2018 to focus on knowing the behaviors and counting the numbers of steppe vultures in the Dhofar Governorate.

The research team also worked on installing 13 satellite tracking devices in a number of 13 eagles, in order to provide all the important required data that reaches us up-to-date and helps us monitor accurate information. The office carried out field survey to important sites visited by steppe eagle to monitor and record important information, count its numbers, and work on analyzing that information in a specialized scientific way.

With regard to the preliminary results, Al-Hakmani revealed: The preliminary results of the study showed a significant decrease in the numbers of migratory steppe eagles, a decrease of 84% during the study period, compared to 2019, specifically during the months between (October until the end of December) of Each year, the estimated numbers of visiting steppes eagle visiting the Dhofar Governorate in 2019 recorded about 500 eagles, while their estimated numbers in 2020 were recorded at about 80 eagles only.

This is likely due to a number of threats, the most important of which is the lack of food availability and the most prominent of which is a shortage of carrions (dead animals or their remains). These results also indicated that the steppe eagle spends the summer period in Central Asia and migrates with the beginning of October to southern Arabia, especially the Sultanate, Yemen, and southwestern Saudi Arabia. And in the spring, often in March, it leaves the winter regions and returns to the summer

regions of Central Asia. Al-Hakmani indicated: The current data available at the Environmental Conservation Office at the Diwan of the Royal Court confirms the death of three of the thirteen birds on which the tracking devices were installed via satellites. The research team investigated the matter, where they found in the meantime that one of these devices is still sending its signals from a fixed location in the Rumaila area in the Governorate of Dhofar.

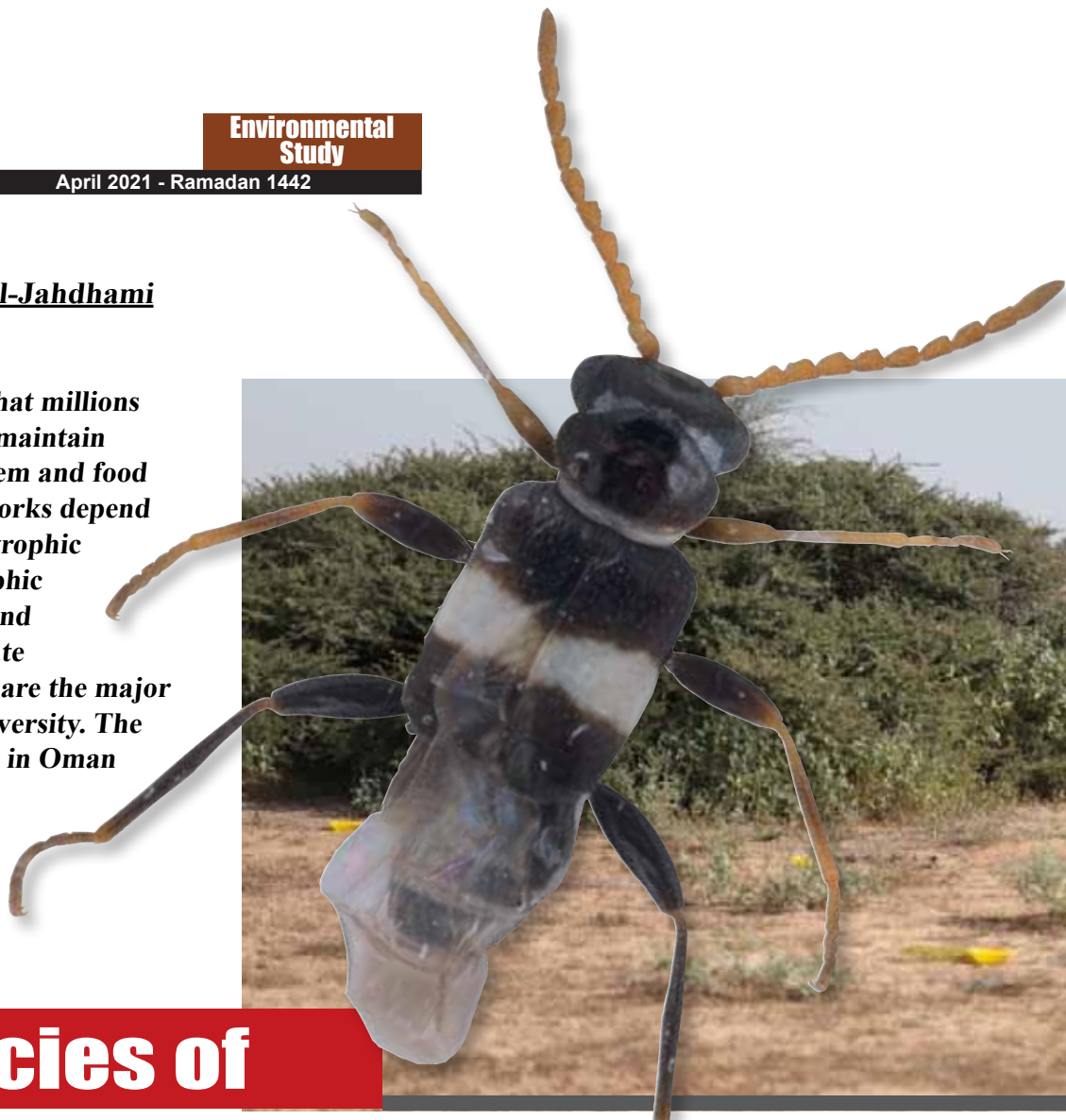
He added: We thank the cooperating parties here, namely: the British Omani Association and International Bird Research, the Brend Meyberg Foundation for Research and Conservation of Birds of Prey, the Arid Land Organization, and the Omani Environmental Services Holding Company. We also commend the cooperation and community and civil support for all environmental projects implemented by the office. It is worth noting that the Environmental Preservation Office at the Diwan of the Royal Court affirms the continuation of the existing and fruitful cooperation with various environmental agencies and relevant authorities, whether inside or outside the Sultanate, to come up with the best results and recommendations, raise perceptions for those concerned, strengthen policies and instill environmental culture in the Omani society. It also stresses the continuation of following up the migration routes of the steppe eagle and limiting its numbers and behavior in the Dhofar Governorate to preserve and protect it for the sake of Oman and future generations.



Prepared by - Ali Abdullah Al-Jahdhami

Saeed Hamed Al-Rashidi

**T**he most fundamental role that millions of arthropods is helping to maintain the balance of the earth ecosystem and food chains. These are complex networks depend in interaction between the autotrophic that is plants and the heterotrophic that is the most food chain depend in insects. Insects is the dominate faunas of all the continents and are the major components of the earth's biodiversity. The exact number of species present in Oman is unknown but there are some estimations to be at least 5,000 to 6,000 different species living within.



## New species of

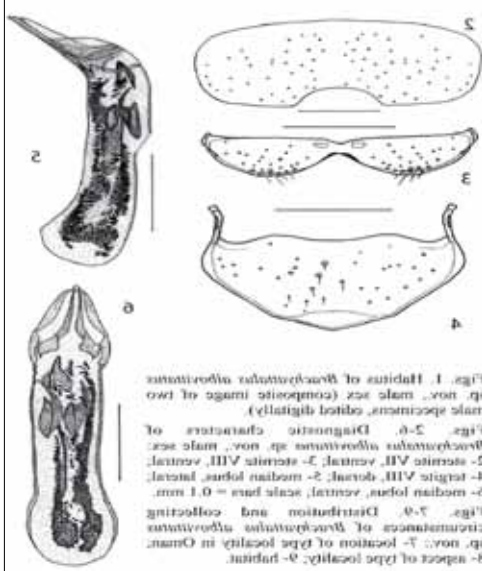
# Soft-wing flower beetle

## found in Oman

In early 2018, the National Field Research Center has collaborated with the Petroleum Development Oman Company to study arthropods and other biodiversity in the concession areas in south Oman. This study was carried out in two phases; firstly, a pilot study has been done which includes collecting the previous biodiversity studies of the same area and other available environmental documents and reviewed to prepare a checklist for the target organisms and making mechanism to collect and monitor them. In the second phase, site visits were undertaken to collect all necessary information and analyzed and identified scientifically. A group of seven researchers and research assistance formed from both organizations to carry out the survey.

### Arthropods

The aim of the biodiversity survey in the Nimr desert is to develop a series of interrelated products that address specific issues that lead to better current and quality environmental data via describing the rich and diverse natural habits and the wide range of plant and animal species that thrive in. In addition, creating a digital environmental database to be a reference for studies and conservation of the



environment, determining effects on the areas environment, and setting plans to achieve sustainable development. This study includes mammals, birds, plants, reptiles and arthropods. In total 126 insect species were identified,

a new discovery of Soft-winged beetle from central Oman in foggy desert have described by Austrian researcher (Isidor Plonsky) and two Omani researches (Ali Al-Jahdhami and Said Al-Rashdi). The researchers published a scientific paper about the new discovery to science in -Studies and Reports Journal-. This journal is an international journal and it specialize in publishing studies in systematic entomology (especially those aimed at Beetles), catalogues, bibliographies, book reviews, etc. The researchers named the new beetle *Brachyattalus albiovittatus* that is Latin adjective ("white-striped") and refers to the conspicuous colouration of the specimens. Von W. Wittmer (Swiss entomologist) was the first researcher studied this group of beetles from Oman and Arabian Peninsula in 1979 by series of publications.

For more than 30 years, the Melyridae become a mystery with no records or publication because of poor insect research. These beetles are elongate-oval, soft-bodied beetles 10 mm long or less. Most



- They are elongated, oval, soft-bodied beetles with a length of 10 mm or less
- The Sultanate contains many unknown species and is waiting for excited researchers to discover them



of the adults and larvae of the soft-winged beetle are predaceous, but many of them are good pollinators on flowers. Beside this new discovery, two more species from same family were collected are brightly patterned in black and brown. The later two species belong to two genera Colotrema sp and Flavojulistus sp. Both genera are not possible to detect the species by Isidor and Ali Al-Jahdhami because the collected specimens are females and males are needed for the precise identification. Said Al-Rashdi could collect the Melyridae species by yellow pan traps distributed randomly among shrubs and grasses. The specimens were kept in ethanol solution and sent to Ali Al-Jahdhami for sorting and dissection. The single light trap was not able to attract Myleridae beetles, despite these beetles are well attracted to light as Ali Al-Jahdhami collected two species by light from north Oman.

#### Number of Flower Beetles Discovered in the Sultanate

The number of species of these beetles from Oman are poor. Ali Al-

Jahdhami has collected four species of this family from north and south Oman, two of them are being new for Oman and Arabian Peninsula

#### Characterization of the Geographic Nature of Newly Discovered Flower Beetles from the Nimr Region

as there is one species in Oman Natural history. The new beetles were collected from wadi ronub and the ambient climate of the Wadi is hyper-arid and the habitat can be circumscribed as an open xeromorphic dwarf shrub-land intermixed with annuals and grasses and with few trees and large shrubs.

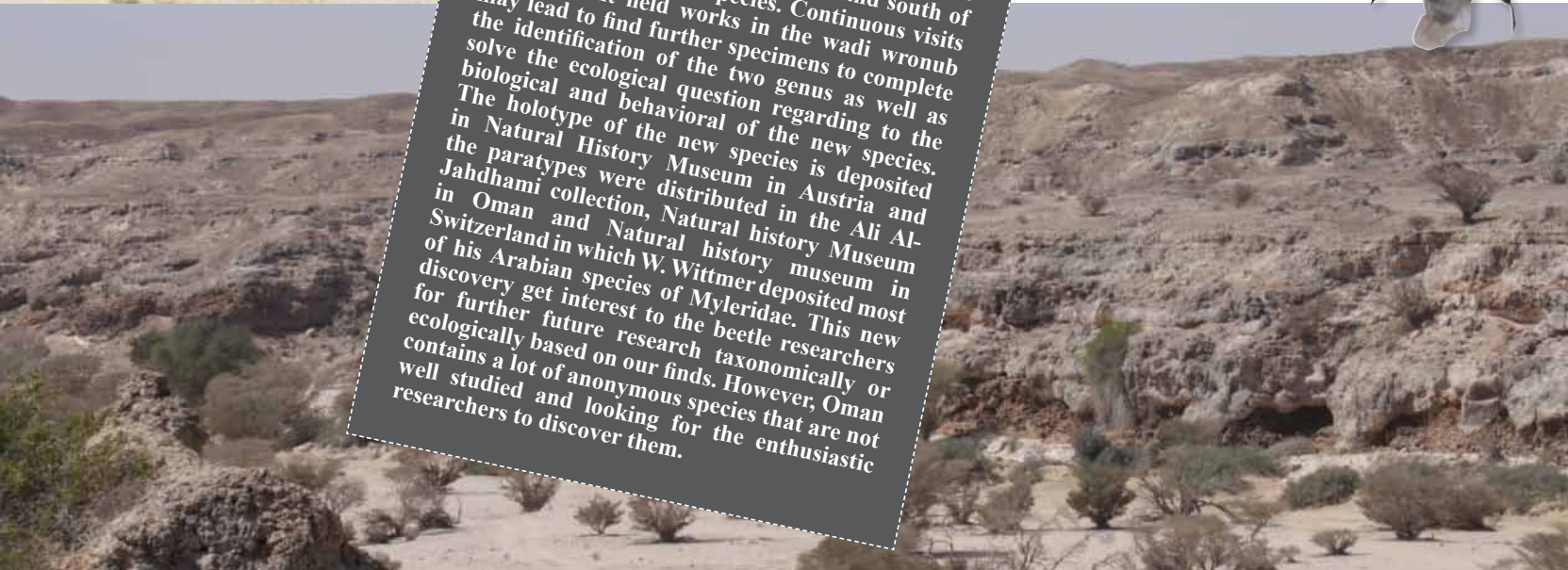
The new beetle is only known from specimens retrieved during one collection event at the beginning of April. This coincides with a re-occurring weather pattern: most rainfall happens during spring due to the influence of the Oman Convergence Zone. The discovery of the new beetle is in an area known for endemic species makes it a candidate for being so and this need further faunistic research to confirm or refute the hypothesis of species endemism in Oman.

The whole picture of life-history is of course incomplete, but, as far as it is known, typical for a desert dweller. There are other weather patterns that yield precipitation and it has been hypothesized that animals can also utilize the resulting water resources including these beetles. When the type locality was revisited around the same time in 2020, specimens of the new beetle were not found again, because of an intense dry climate and an infestation of the Rima desert by the desert locust, which arrived in early March 2020 - the vegetation was partially destroyed by desert locust feeding and the drought had desiccated most of the remainder.



### The New Flower Beetle Species Remains a Mystery that Needs More Research

This raise several question about the local migratory of the new beetle or the obligatory dormancy. Changing trophic level from carnivores to phytophagus or the opposite is another suggestion to interpret the ability of these beetle in the hyper-arid wadi. This anthophile beetle are still unknown attracted flowers as this beetle is suggested are highly specific to particular plant or plant families. The low population of the host plant for the limit distribution of this new beetle indicate adult as well as the activity period annually. The existence of the four species from one location from the same trap is another indication of the diversity of plant in the wadi Ronub which is unlike most locations in the north and south of Oman to find similar species. Continuous visits and frequent field works in the wadi wronub may lead to find further specimens to complete the identification of the two genus as well as solve the ecological question regarding to the biological and behavioral of the new species. The holotype of the new species is deposited in Natural History Museum in Austria and the paratypes were distributed in the Ali Al-Jahdhami collection, Natural history Museum in Oman and Natural history museum in Switzerland in which W. Wittmer deposited most of his Arabian species of Myleridae. This new discovery get interest to the beetle researchers for further future research taxonomically or ecologically based on our finds. However, Oman contains a lot of anonymous species that are not well studied and looking for the enthusiastic researchers to discover them.





## The Role of Voluntary and Civil Efforts at Dhofar Governorate in Preserving Environment

**R**ekhyout – ONA: The efforts of the civil and volunteer teams in Dhofar Governorate contribute to preserving the local environment, addressing its problems, preserving its natural resources and protecting wildlife in cooperation with the concerned authorities. Environmental volunteers aim to protect the components of the natural environment in the various regions and Wilayat of the Governorate in cooperation with the concerned authorities to reduce the risks of pollution and damage to the environment. Environmental activist Ali bin Salem Akaak, told the Oman News Agency, that his interest in the field of environment led him to deal directly with environmental elements, rare natural components and local plants. This leads to direct engagement and interest in

volunteer work in the environmental field. He added that he seeks to collect an archive of information on local trees, write their local and scientific names, their nutritional, therapeutic and cosmetic uses. He indicated his interest in local plant seeds through his work with environmental teams in the Governorate, and recently with the Environment Authority's campaign to collect, spread and plant seeds in the summer period «Qadh», in order to germinate seedlings during the autumn season. The environmental activist, Ali Salem Akaak, talked about his participation with the volunteer and civil teams in the Ghado Prosecution Office in Salalah Wilayat, praising the efforts of the Aten Volunteer Team for combating the Stalk Borer insect of perennial fig trees, such as Agaric and Stalk,

explaining that these efforts focus on cutting the affected branches that most of them have dried up branches. Within these dry branches there are swarms of insects. So, it is burned later. After that, the healthy branches are sprayed with approved insecticides to ensure that the insect is not transmitted to them. Taking care of the local environment, led the environmental activist, Ali Salem Akaak, to the search and investigation on the risks affecting environmental diversity, such as invasive plants. He has had a prominent role in monitoring and knowing the biological diversity of exotic plants harmful to the environment, «invasive plants» such as the «Parthenium» plant harmful to the environment and humans, which has recently spread in the mountains of Dhofar Governorate.

### KSA

## Planting 100 Thousand Seedlings in the King Abdulaziz Reserve

**T**he first phase of the afforestation campaign of King Abdulaziz Reserve in the sisterly Kingdom of Saudi Arabia included planting 100,000 seedlings of the Gulf Ghaf, Talh, Remt and Arfaj species. The Saudi Press Agency stated that the campaign aims to preserve the environment,

develop natural vegetation cover, achieve sustainability, combat desertification and preserve endangered plants. The Agency explained that the project, which consists of seven phases, aims to plant 500 thousand seedlings, which will be irrigated by the method of water harvesting.

### UAE

## The Supreme Committee for the Protection, Exploitation and Development of Living Aquatic Resources Holds its First Meeting

**T**he Supreme Committee for the Protection, Exploitation and Development of Living Aquatic Resources held its first meeting for the year 2021, chaired by His Excellency Dr. Abdullah Balhaif Al-Nuaimi, Minister of Climate Change and Environment. His Excellency Dr. Abdullah Al-Nuaimi said that Protecting the

marine environment, preserving its natural resources and ensuring the sustainability of its wealth and biodiversity is one of the strategic priorities that the Supreme Committee is working to achieve through cooperation and coordination with its strategic partners and by employing modern technologies and innovative solutions.

### Kuwait

## Biodiversity Monitoring Project

**A**s part of Completing the Biodiversity Monitoring Project that belongs to the Public Authority for the Environment, in cooperation with the International Union for Conservation of Nature (IUCN), and under the supervision and leadership of bird experts, Dr. Muhammad bin Yaslam Shubraq from the Kingdom of Saudi Arabia, and Eng. Abdul Rahman Al-Sarhan from Kuwait, the

Birds Monitoring and Documentation Group from the Department of Biodiversity Conservation followed the bird migration season for the year 2020/2021-, during which birds of prey and vultures crossing from North and Central Asia were monitored as they crossed from the regions of North and Central Asia onto Kuwait and on their way to Africa.

### Qatar

## Qatar Participates in the Leaders' Summit on Climate

**H**is Excellency Abdullah bin Abdulaziz bin Turki Al-Subaie, Minister of Municipality and Environment, participated as a keynote speaker in the virtual sub-session on adaptation and recovery, held on the

sidelines of the Leaders' Summit on climate organized by the United States on April 22, 2021. Mr. Tom Vilsack, US Secretary of Agriculture; And Mr. Alejandro Mayorkas, US Secretary of Homeland Security.

### Bahrain

## Installation of Solar Chairs for Rechargeable Communication Devices

**T**he member of the Southern Municipality, Abdullah Abdullatif, praised the idea of installing chairs equipped with lighting technologies and charged by solar energy. "This initiative is new of its kind in the Kingdom of Bahrain. It is a chair with technologies that work on solar panels, including lighting (LED) and the process of charging via a (USB) press for smart devices. It is environmentally friendly and the chair is characterized by being shaded and with cement base work on solar panels and installed on the ground. It is currently existed in the Southern Governorate only." said Abdullah Abdullatif, He added that there are more of these chairs in the near future.

## Britain Prepares to Open the World's First Airport Entirely Dedicated to Electric Flying Cars

London – ONA: This year, the United Kingdom is preparing to open the world's first airport dedicated to electric flying cars and autonomous delivery aircraft, becoming the first airport not to emit greenhouse emissions. The environmental affairs website "Intelligent Living" stated that the project, which was called «Air One» and was designed by the «Urban Air Port Construction Company», made it possible to obtain a large grant of 1.4 million euros to fulfill its vision with the aim of providing a launch and reloading base for all electrical vertical takeoff and landing vehicles. Ricky Sandhu, founder and CEO of Urban Air Port, said that cars need roads and trains need rails, planes need airports, and electric flying vehicles need special airports that help improve transport between cities, boost productivity, and help Britain lead a new and clean global economy. The company chose a location near the British city of Coventry because of its central location. The city's history as a center for the aviation and automotive industry also contributed to its selection.



Environmental Vocabulary

## The Wild Mountains Fruit

Eng. Khalifa Badawi Al Higgi  
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Mountains always dazzle us with their unique natural ecological reserve of biodiversity that reflects their identity, adapts with them, harmonizes with their terrain, and cannot separate from them. The biodiversity breathes mountainous fresh air in summer equinox, while it is hidden in frost cover in the cold of mountainous winter, as if it escapes from it to it. The biodiversity throws it selves to the mountains lap surrendered to a life of warmth and security. The mountain wild trees formed close friendships with the rocks that they split to bring out the trees into the world of life as a womb that gives a new birth. From which they emerge into the elevated world as trees, not knowing that they came out of the womb of rocks. (It is He Who brings out the living from the dead, and brings out the dead from the living)

In summer, temperatures race higher in the plain, whereas competent in equinoxes in the mountain. A unique privacy made mountain wild trees raise the hat of pride and highness. As the temperatures decreased, this tree becomes more green and more generous. Between May and August, Al Hajar mountains especially Jabal Al Akhdhar and Jabal Shames, attract the tourists over the world that are stopped by local sellers with varieties of the distinctive mountain fruits, including - undoubtedly, this small, black-colored fruit, which tastes deliciously like cranberry. Whoever sees it and tastes it, his mind turns away, the rare and perennial tree for hundreds of years that its length often not exceeding two meters. Often this tree found close to the gigantic Juniper tree, takes shelter in its shade, and humanize near it. They both share the roots of history. This wild fruit tree stands on a short and strong stem, then branching to soft branches covered with oval elongated leaves that give the tree evergreen. Along branches spread short and sharp thrones. In the beginning of April, it begins to bloom, and then small green fruits are piled up along the branches, then turn black at the beginning of May, informing the beginning of the end, calling in an inaudible voice come to get my generosity and pick my mature fruit. The gradation of the colors of the fruits with the color of the green leaves paints a natural painting board that was not touched by an artists feather, but rather it is more like a piece that fell from the gardens of Paradise.

In the season of fruit ripening, the local people spread throughout the mountains, carrying their baskets, heading with eagerness and vigor to where these well-known sugary fruit trees. Their steps begin at night, and when the dawn breaks darkness of the night, they proceed with caution in reaping fruits. They take care because fruits are soft, small, and surrounded by thorns that help in reducing reaping, as if the tree says; take your share and leave for others. It is a source of livelihood for the people that does not cost them anything but the fatigue of distances and the patience of the stabs of thorns. Therefore, they preserve it according to certain custom that have been agreed upon, in recognition of its great importance. On the other hand, it bestows them its abundant generosity. The exchange of benefits is not governed by agreements or treaties, but rather by the innate sensory feeling in accordance with the philosophy of mutual benefit and coexistence.

One of this tree species was found in Jabal Samhan, Dhofar Governorate. This motivates the importance its recovery from the fate of extinction by intensifying its cultivation in its natural habitats and deepening awareness of its importance and conservation. The boot tree is a thread connected to the interest of society. If the boot remains, the thread becomes stronger and rises, and if it dies, the thread weakened and cut off.

## A Tracking Program for Waste in the Seas and Oceans



DPA - San Francisco: A team of researchers at the University of Florida, USA, has developed a new virtual tool to track the impact of millions of tons of waste that pollute seas and oceans and harmful substances to the environment. The «Science Daily» website, which specializes in technology, quoted researcher Eric Chassignet, from the Center for Predictive Oceanic and Atmospheric Studies at the University of Florida, as saying, «Marine litter is found all over the world, and we do not fully know its

impact on the ocean ecosystem or on human health. That is why it is important to know more about this problem and to identify effective means to mitigate its effects.» The new program is fed with data on the volume of plastic waste worldwide, and it also contains information on ocean currents as of 2010.

## Dozens of Dolphins Died on the Shores of Ghana

Accra – ONA: At least 80 dolphins and large numbers of fish have died on the beaches near the Ghanaian capital, Accra, since Friday, prompting the authorities to open investigations. A Ghana Fisheries Ministry statement said, «A team took samples of fish and water from Osu Castle beach in Accra.» Michael Arthur Dadzi, head of the Fisheries Commission, said in a statement to «Reuters»: that between 80 and 100 dolphins have been found. In turn, the Food and Drug Administration announced that it is "monitoring fish markets to ensure that dead fish are not sold.»



# Seahorse



Hi, I am a tiny fish that is named for the shape of my head, which looks like the head of....yup, you guessed it -a tiny horse



There are around 36 seahorse species, which are found in tropical and temperate coastal waters



My body is covered with tiny, spiny plates, from my head down to my wrapped and flexible tail



I am a master of camouflage, I can be incredibly difficult to be seen. Camouflage not only helps me avoid predators, it helps me to be a predator, too .

