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

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Issue 47

Marine Pollution

a risk that requires combat and minimizing its effects

The Sultanate Ranks Ninth in Implementation of Environmental Laws Globally

The Sultanate has achieved an advanced ranking in the field of environmental sustainability, according to the World Economic Forum in its latest report this year. This progress is achieved through the Sultanate›s high performance in environmental sustainability, the implementation of environmental laws, the emphasis on environmental laws, and sustainability in the development of the industry of travel and tourism. The Sultanate ranked 9th globally in the implementation of environmental laws, 11th globally in the Toughness of Environmental Laws Index, and 22nd in sustainability of the development of travel and tourism industry. The Sultanate›s performance has also rose from 109th to 57th in environmental sustainability. This global progress is the result of the continuous work to develop the environmental sector in the Sultanate and supporting it by the laws and regulations, where the Ministry of Environment and Climate Affairs is constantly studying the environmental situation and work to amend the regulations according to regulatory requirements to ensure environmental sustainability, in addition to contributing to the development of industry and tourism sectors to ensure preservation of the Omani environment and keeping abreast of all developments in this regard. The Ministry is keen to maintain its progress for achieving sustainable development goals and continuing development projects, besides its efforts to protect and sustain the environment, especially as the Sultanate starts early in developing plans and strategies that aimed at protecting the environment, as well as the assessment and management of pollution and finding appropriate solutions and it›s application inorder to conserve biodiversity and use resources in a sustainable manner. In this regard, Eng. Ahmed bin Mubarak Al Salti, Director of Planning and Studies Department, said that the Sultanate›s achieving of these ranks came as a result of the Ministry›s re-engineering and simplifying of many procedures in addition to providing human resources within the institution to focus on the development of environmental legislation and laws and intensifying environmental control, In addition to documenting the results and achievements of the Ministry. In this regard, the Ministry has formed working groups to disseminate environmental data and statistics on the website and social media sites as well as ensuring that they are continuously updated in coordination with the National Centre for Statistics and Information. As well, the continuous publication and updating of documented statistics is one of the most important ways to help the Sultanate emerge as required in the competitiveness reports issued by various international organizations. There is currently a team working to follow up the international reports to serve the vision and mission of the Sultanate and its competitiveness.

Establishment of a Solar Power Plant in Sohar Port

Majis Industrial Services Co. has signed an agreement with Oman Unicorn International to supply and install a solar photovoltaic power plant for the Majis facilities in Sohar Port at a total investment cost of RO 0.5 million. Unicorn International will install a 1.3 MW solar PV plant in Sohar, which is expected to be operational by the end of 2020. The plant will rely on the best technologies in the field of solar energy. Unicorn will also deploy 3,600 solar modules and 15 solar inverters to generate 2,350 million hour / kilowatt of energy annually. The project will contribute to saving 681 thousand cubic meters of gas annually, as well as reducesing carbon dioxide emissions by 1,462 tons per year.

point of view

A Bullet Shot

Dr. Dawood Sulaiman Al Balushy
Editor-in-Chief

A bullet shot about to killed him, had it not been for Kindness of Allah and his ability Almighty, It passed in front of him painted a picture of his life in the past and the present, painting with its fireball the features of his future, which almost ended within a blink.

In spite of this he did not care about the bullet strength or the aggressiveness of its impact, but his courage and love for his country pushed him to continue the pursuit until the aggressors were caught in cooperation with the competent authorities.

This was not the first incident in which the wildlife rangers at Al-Sirin Nature Reserve were subjected to direct fire while carrying out their national duty to preserve Oman›s environmental and wildlife components. This incident was preceded by similar ones in a number of protected sites in the Sultanate. Wildlife rangers are often shot and chased during their work, but they are still resilient to anti-environmental trends, believing that they are the protectors of this dear country and that tampering with national resources is an unforgivable crime.

Individual actions that tamper with wildlife from time to time have become a disturbing phenomenon that must be dealt with through strong legal and legislative vigor. We often see our daily newspapers, incidents of hunting ghazalle, tahar, oryx, rabbits and birds of various kinds and sizes. Such incidents even developed into serious gunshots and vehicles chasing that could kill others. Therefore, it is a matter of first priority to enforce legal sanctions against violators of wildlife so as to be a lesson to others who think of committing the same crime.

Acknowledgments and thanks to each and all Wildlife rangers in the Sultanate of Oman for all their outstanding efforts to preserve and protect the Omani environment, Thanks, as well are extended to all concerned authorities and the local community in supporting the arrest of wildlife violators.

We must develop self-awareness as individuals for safeguarding the capabilities of this precious homeland.

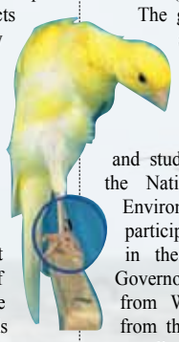
More than 501 Thousand Birds Have Taken the Sultanate Shores as a Place for Comfort and Feeding During their Annual Migration

By: Nasr Al Ragbi

Waterfowl are defined as the species that ecologically dependent on wetlands. This is the definition used by the Ramsar Convention on Wetlands. The International Organization for Wetlands has identified species of birds that are considered waterfowl. There are approximately 33 families of waterfowl living in such lands, including the families of dipping, swans, ibis, flamingos, oyster hunter and others. The availability of long-term surveillance programs for Waterfowl at the continental level is critical, but such programs support the conservation of waterfowl and their wetland habitats. Waterfowl are known to carry indicators of the health of certain types of wetlands and they are an effective toolwetland definition, as any site that absorbs 1% or more of its population is considered a wetland and is of global importance as per the Ramsar Convention on Wetlands.

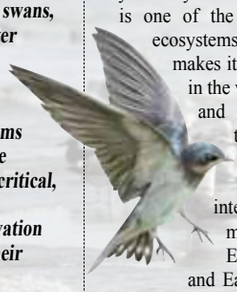
Wetland Reserve

The Sultanate of Oman has a unique ecological diversity that attracts diverse wildlife, especially migratory birds that travel the long distances in their migration. farms, gardens, deserts, mountains, beaches and marshlands serve as stations for migratory birds to stay during their search for the suitable climate for their survival and reproduction, as well as station for food supply before continuing their migration line between continents. That is what confirms the importance of preserving the existing wetlands in the Sultanate and that is why the "Wetlands Reserve" was declared in the Mahut wilayat at Al Wusta Governorate which was established by the Royal Decree No. 51 / 2014. This region is one of the pristine sites with complex ecosystems and unique biodiversity which makes it one of the rare reference sites in the world for studying biodiversity and sustainable use of wetlands that are located between the intertidal zones. It ranks among the top 25 sites of international importance for migratory birds in the Middle East for migration path for Asia and East Africaduring in the winter. It is worth mentioning that the population of birds in the Sultanate is about 532 species. The survey showed, more than 501 thousand birds of about 80 different species have taken the muddy plains, coral reefs and associated wetlands on the coast of Oman as a station for rest and feeding during their annual migration. The "Wetlands Reserve" is characterized by a number of natural components; as it contains a group of islands, marshes, mangroves, nesting and feeding sites for sea turtles, and feeding and mating area for marine mammals, including the rare and endangered Arabian Humpback Whale. it also includes a range of coral reefs and seaweed and a number of endemic organisms that are not found in other parts of the world such as (Omani Clown Fish, Cabbage Coral, The green and logger head turtle, Large sandpiper bird, red sandpiper bird, common vulture, faint merzha bird, and curlew and others.



Field Survey

As part of the mission of tracking and studying migratory birds, a team from the National Field Research Centre for Environmental Conservation (NFRCEC) participated in the field survey for seabirds in the Wetlands Reserve in Al Wusta Governorate, in cooperation with experts from Wetlands International Organization from the Kingdom of the Netherlands and coordination with Ministry of Environment and Climate Affairs. In this effort, surveys have been conducted on migratory and endemic birds, where waterfowl are counted to monitor their continental status and to provide information to support their conservation and habitats of wetlands. Two methods were used to determine the number of birds in the survey (individual count) in which each bird is calculated separately according to its type (1›2›3..etc), and the second method (counting in units) and is used for large numbers and flocks each group represents 10 numbers (10›20›30 ... etc). This requires some kind of skill and experience to reach the number as nearest to the correct as possible.



Survey Tools

During the survey, a number of tools were used to count waterfowl, which are visual tools consisting of tools that help correct classification and accurate counting, and tools to record observations of the numbers of birds of different species in order to achieve the objectives of the survey of migratory water birds:

1. Endoscope: Dual-eyed Endoscope is used to track birds from a distance and can be used for mobile scans by driving the vehicle in survey lines.

2. Telescope: It is one of the important devices to monitor the remote birds and is characterized by its ability to round long distances, allowing the possibility to identify the small details of the bird such as colours and rings of legs, if any.

3. Bird counting Device: The bird counter is used to count the birds numbers in the survey area. Bird counters are available in different forms and can count more than one type of birds at a time due to the presence of more than one meter that can be mounted on the telescope.

4. The Scale: used to know the weight of the bird.

5. The Nets: The researchers identify a prediction area for the movement of birds during the Inter tidalin the wetlands, and nets are erected along the area. Nets may reach 50 meters in length and up to 3 meters high from sea level. The nets opened after sunset so that the birds cannot see them. Wind speed is taken into account so as not to cause the loss of nets.

6. Leg loops: One of the methods used by researchers and bird watchers to put loops on the legs of the bird that contribute to reading information and taking data out of them. They serve as a bird identification card (passport). There are other ways such as marking the bird›s neck and coloured paints and wings marks.

7. The Ruler: used to collect bird dimension data, such as wing length, beak and leg.

8. The Camera: It documents pictures of the bird showing its shape, colours and size.

9. The Registration Form: It includes the variables recorded on the bird, such as its type, length, time of viewing, and other important data.

10. Reference Books: Researchers refer to them to identify birds accurately while viewing them and compare what is in the references to what is seen in nature to see if there are new records that were not previously documented in the survey area.

Marine Pollution

Marine pollution is one of the main factors in elimination of many organisms, and has significant impacts on human health on the one hand and the economy on the other. Oil pollution is the most dangerous type of marine pollution, resulting in huge problems and the death of many aquatic organisms. Countries and international bodies need to exert all efforts to get rid of the oil spills on the sea.

With the increase in overseas trade, the establishment of free industrial zones, ports and desalination plants and the pollution they can cause, Countries had to study their environmental impacts and enact stringent legislation and laws that would reduce pollution.

Results of International Studies

A number of studies have been conducted in this respect, which has demonstrated the risks and consequences of this contamination. In an Investigative study published by Science Journal, included 159 coral reefs in the Asia-Pacific region, researchers estimated that 11.1 billion pieces of plastics are tangled with coral reefs. This figure is expected to increase by 40% in the next seven years alone. In another study published in the Marine Pollution Bulletin, scientists recorded a disturbing development with regard to the intake of plastics by marine biologists. They pointed out that there is a countless number of evidence that marine creatures are eating up plastic debris, especially Micro-Plastic Materials, as food taken by mistake. A recent UAE study confirmed that marine wastes and residues pose a significant threat to green sea turtles. According to the study conducted by the Scientific Research Department at the Environment and Natural Reserves Authority in the Emirate of Sharjah, 86% of the turtles that are stuck, swallowed marine residues, mostly plastic, including ropes, weaving, cotton sticks, plastic woven bags, yarns, hooks, nets and traps for fishing. Another study conducted by a research team from the College of Engineering at Sultan Qaboos University on the assessment and simulation of the spread of oil spills in the coastal area of the Sultanate, that the sea water suffers from oil pollution, especially near the port of Sultan Qaboos, Muscat and Oman LNG plant, as shown by chemical analysis The highest concentration of lead was found to be around 0.050 ppm and vanadium about 0.006 ppm. These concentrations are very high when compared with other parts of the world. (global lead concentrations: Central Atlantic: 0.00005 ppm on average). It is worth mentioning that the study aimed to determine the amount of oil pollutants in the water along the Omani coast and to study the remedial measures. The Guardian newspaper, also published researches which revealed that plastic pollution in the world›s oceans, costs the international community billions of dollars each year through its impact on human resources, with fisheries, aquaculture and recreational activities particularly affected, as well as what the pollution causes in terms of losing what is estimated by 1.5% of the benefits that humans get from the oceans. The study revealed that an estimated eight million tons of plastic pollutants enter the world›s oceans every year. Plastic trash accounts for 80% of what flows into these oceans from rivers.Pottles make up to 14% of the visible elements of trash. The food packaging 12%, cigarette butts 9% of fresh water pollutants, as well as disposable food containers that make up to 6% of all ingredients, followed by cotton buds and ready-made cups with 5% and 4%, respectively.

Classification of Pollutants

In addition to talking about plastics as one of the most prominent pollutants of the sea, the most dangerous types of marine pollution in the world are classified

Remedial Solutions

Remedial solutions of the marine pollution problem are represented in the need to treat waste water before it reaches the soil or natural water surfaces, such as seas and oceans, in addition to cleaning the seas from oil spills resulting from the collisions of giant marine vehicles, especially oil tankers, through mechanisms determined by experts. The resulting damage can be prevented or minimized by halting urban sprawl on the beaches, preserving beach sand that is home to sea turtles and other marine organisms, and rationalizing fishing operations, as well as the awareness of the importance of environmental culture for all individuals so that responsibility is shared between individuals, institutions and concerned bodies and that will benefit everyone.

Major Causes of Marine Pollution

- Throwing away waste and excess remains.
- Increased overseas trade and oil pollution is the most dangerous type of pollution.
- Establishing of free industrial zones, ports and desalination plants.

a risk that requires combat and minimizing its effects

Marine pollution hinders marine tourism, affects the country›s productivity and the national income

The Sultanate is the most vulnerable country to marine pollution in the region because of its geographical location

Oil pollution is the most dangerous type of marine pollution

to include natural pollution, which changes the properties of natural water due to changes in temperature, where the increase in the amount of evaporation of water increases its salinity as well as it causes the water to become smelly, and lead to change water colour and taste. The second category is the chemical contamination that results from the impact of waste water, agricultural residues and the subsequent insecticides and many wastes that are dumped into the water and affect the aquatic organisms that are then consumed as food. Oil pollution is the most serious type of marine pollution, which causes huge problems and the death of many aquatic organisms, and countries and international bodies need to make many efforts to get rid of oil spills on the surface of the sea. The reasons for this type of pollution include technical errors in the systems operating in the production of oil, the lack of capabilities for production, maintenance, and the leakage of oil during smuggling operations through the sea and ocean, as well as the overturning of oil tankers due to weather conditions or a malfunction that caused it to explode and leak oil. Added to this is the biological contamination that results from the mixing of the waste of wild organisms such as humans and animals living on land near sea water, causing the spread of micro-organisms that cause many diseases, which affect humans when washed by the water or fed from the meat of fish, and these microorganisms such as bacteria,parasites, viruses and algae, cause many serious human health diseases that are difficult to treat. The algal blooms which is known as the “red tide” is a natural phenomenon that results from the growth and persistence of large concentration of aquatic microorganisms and unicellular algae. The occurrence of the red tides is attributed to natural factors, such as increasing seawater temperature, the movement of marine currents and Monsoon, especially at this time of year, and human factors that are related to the increasing human activities along the coasts, such as establishing tourism cities, factories, desalination plants, and fish farms.

Effects and Damages

Marine pollution causes huge economic losses that require the world to spend billions in order to find solutions and protect the environment from further damage. These include the damage caused by the floating oil layer on the surface of the water resulting from the different marine pollutants that draw the amounts of oxygen dissolved in the water and blocking the sunlight from reaching the water, so the plant fences can not able to carry out photosynthesis that depends on the presence of Sunlight, carbon dioxide dissolved in water, chlorophyll, which produce carbohydrates, resulting in the disappearance of large marine organisms of high nutritional and economic value to humans. These effects also extend to waterfowl, leading to poisoning and the death of many of them gradually. Also, chemicals spoil the natural properties of water and are highly concentrated in water, the mater that leads to poisoning of water and consequently the death of marine organisms. In addition, fisheries are affected by petroleum products of various kinds, which they call oil spills, hazardous substances and leaks as a result of ship accidents leading to the death of fish, thus affecting an important food resource. This also prevents attracting tourists to coastal areas due to the pollution of the seas resulting from oil pollution and sewage pumping, as well as the impact on productivity and national income of the country due to accidents of ships and offshore rigs and oil spills that lead to the suspension of work.

The Reality of Local Pollution

As for the marine pollution situation in the Sultanate, 94 reports have been identified since the beginning of this year, among them is 21 oil pollution, in addition to 8 other reports of shipwreck and collision incidents, and 5 reports of some people transporting sand from the shore. In addition to one report on the red tide and 59 other reports on other types of pollutants. The Ministry of Environment and Climate Affairs pointed out that the volume of reports this year has witnessed unevenness. 25 reports were monitored during the first quarter of this year, 20 others were reported during the second half, while for the third quarter, 23 reports were received and 25 others in the last quarter of Year. By virtue of its geographical location overlooking a number of seas and oceans, the Sultanate is classified as the most vulnerable to marine pollution in the region due to the active maritime traffic in addition to the illegal practices carried out by ships in the territorial waters and in the private area of the Sultanate. In this context, the Sultanate has moved to plan how to protect its waters in particular and its environment in general through the enactment of a number of laws to ensure this. Article 29 of the Law of Environmental Protection and Pollution Control, provides for the necessity to make environmental planning an integral part of overall development planning in order to achieve sustainable development in addition to the Marine Pollution Control Law No. 35 / 81 and the establishment of the Environmental Protection and Pollution Control Council in 1979.

Announcement of Registration for Participating in «ESO›s Green Innovation ECO-Thon»

Nama Group, in collaboration with the Environmental Society of Oman, launched the Youth Innovation Initiative (ECOTHON). The program aims to find innovative solutions to environmental challenges and empower youth in this field through projects, applications and systems related to the Fourth Industrial Revolution with the participation and selection of 100 students from various universities and colleges in the Sultanate.

The initiative will focus on three main themes: waste management (waste reduction, recycling, waste-to-energy innovations), carbon uptake and alternative energy (smart transport system, carbon uptake by plants, use of renewable energy resources as alternatives), and efficient use energy and water (in colleges and universities) and other topics provide an opportunity for young people to use their creativity.

The program gives students the freedom to choose which platform or framework they want for creating the best applications, programs, and projects.

«The environmental pillar is considered as one of the three pillars of Nama›s sustainability policy,» said Ghada Al-Yousef, Executive Director of Nama Group›s Communication and Sustainability Department. “Through our operational and social responsibility projects, we seek to achieve the desired goals that are in line with the objectives of the Sultanate and the global trend in the environmental aspect. As we strive in Nama Group to be integrated in our projects, we value the participation and contribution of investors and the private sector to integrate in order to obtain sustainable projects” added she.

Qatar

A joint Campaign to Seize the Violating Trucks in Al-Shaikhania

The Ministry of Municipality and Environment, represented by Al-Shaikhania Municipality, carried out a joint campaign to control a number of violating trucks that throw waste in unallocated places within the geographical boundaries of the municipality. The campaign aimed at controlling the trucks which dump farm waste in unauthorized places and burying them. The matter that negatively affecting the environment, as the resulting violations harm the environment and general cleanliness. This comes as part of the ministry›s continuous efforts to curb this phenomenon, which distorts the country landscape. During the joint campaign, 18 violating trucks were seized, as they throwing random waste and burying it on the farm.

K.S.A.

Environment Fights the Desert Locust and Treats 1,500 Hectares at the Southwest Coast

The Ministry of Environment, Water and Agriculture revealed that the exploration and field control teams were able to explore 47,000 hectares and treat 1500 hectares in 25 locations during the period from 13 - 20 September 2019, and explained that the exploration took place in the south west coast of the Kingdom between Laith and Jizan, including Tihamat Al Baha (Qalwa and Al Makhwat) and Asir Coast. The fight was concentrated in Makkah at Al-Laith Governorate and Jizan area, Abu Arish and Ahad al Masarehah governorates.

According to MEWA, combat and control efforts resulted in eliminating large populations of locust in early stages of growthbefore molting.

Bahrain

An Environmental Exhibition Entitled «Environment Month»

Gulf Air, in cooperation with the Supreme Council for the Environment and Al-Taj Waste Recycling Company, organized an environmental exhibition entitled «Environment Month» with the participation of a number of environmental supporters and environmental entrepreneurs from civil society, in order to raise the level of environmental awareness towards the risks of plastic pollution. During the exhibition, the Supreme Council for the Environment presented an awareness lecture on the dangers of plastic materials and their negative effects on the environment, ways to deal with the plastic issue and alternative solutions and ways to get rid of the problems of plastic waste. The Board also reviewed the law of banning the non-biodegradable plastic bags, the current situation of plastic waste in Bahrain and the national integrated strategic plan for waste management.

UAE:

«Climate Change and Environment» Launches «Green Barjeel Project»

The Ministry of Climate Change and Environment has announced the launch of a research project entitled ‹Green Barjeel›, in collaboration with Khalifa University and American University of Sharjah, to employ innovative production techniques for local algae to support sustainability efforts for the environment and climate and support agricultural production. The project aims to develop innovative production techniques for algae collected from aquatic clusters in the UAE desert environment in miniature plants designed in the form of ‹barjeel› heritage. These algae, adapted to the country›s climatic conditions, will absorb and store carbon dioxide from the atmosphere and absorb dust, sulfur oxides and nitrogen to reduce greenhouse gas emissions and air pollutants.

Kuwait:

An inspection campaign on public beaches

The Capital Governorate Committee at the Municipal Council and the Hawalli Governorate Committee started to follow up on complaints, reports and media coverage, in coordination with the Environment Police Department and to conduct an inspection campaign on the public beaches, in accordance with Article No. 33 of the Environmental Protection Law No. 42 of 2014 and its amendments, which stipulates that it is prohibited to dump garbage or Waste of any kind except in the containers designated for this purpose. During the campaign, 18 violations of public beaches were registered because the accused did not maintain the cleanliness of the beach and dumping various types of waste on land and places not allocated to them. The beach goers, citizens and residents, were made aware of the need to preserve the environment and enforce the Environmental Protection Law.

A Discovery of a New Way to Turn Heat into Useful Energy

An international team from Ohio State University and other universities and institutions has discovered a new mechanism for capturing heat from the surrounding environment and converting it into electricity.This discovery, announced on September 13, 2019 in the journal of Science Advances, could contribute to generating useful energy from heat generated by automobile exhausts, space exploration and industrial processes, can thus utilize the thermal energy oftenwasted.

This discovery is based on the discovering of small molecules called "Paramagnons" pieces. These materials do not have full magnetic properties, but they have some magnetic flux. Magnetism is then called «Paramagnet». Itcreates a property of magnetic flux, The so-called «spin» - a type of energy called «Magnon electrothermal attraction» - a new discovery that established this energy to capture heat from the surrounding environment, such as room temperature, which has never been exploited.

Reducing Methane Emissions is the Best Way to Slow Global Warming

Researchers in two separate studies have found that controlling methane emissions is a quick and decisive way to slow global warming.

The researchers found that the largest oil fields in the North Sea and Pennsylvania fields are an important focus for the emission of this gas, which has more than 86 times the greenhouse effect of carbon dioxide, and has increased more than 35 times in the last 100 years.

In the first study published in August this year, a research team from Princeton University examined a region rich in natural gas wells in western Pennsylvania that produces about one-third of US gas production, and found that many of these wells emit more methane than expected.

In the second study, researchers from US and British universities provided fishing boats with sensors and sailed around offshore oil and gas platforms in the North Sea, and found that the amount of methane emitted from these facilities was twice as high as those officially reported in reports to the British government today.

The use of Fungi in the Manufacture of Textiles and Leather Products

The Environmental Action Group, known as the Rebellion on Extinction, is disrupting London Fashion Week to highlight the damages of waste culture. It calls for the cancellation of Fashion Week in the future. It plans to target the shows places and set up a funeral procession called «London Fashion Week: Rest in Peace».. These may be new environmental protests, but the garment industry is already causing many long-known problems such as high water use, pollution and high carbon footprint, which are known to be extremely environmentally and socially harmful. Many solutions to these problems have been proposed, such as the concept of «slow fashion», an approach that recommends that we buy high-quality clothing that lasts longer. Another option is to recommend that we buy less, something that protest groups are encouraged to take part in initiatives to help people and the planet. Attempting to reduce demand for new clothing will certainly be an important part of a more sustainable future, and changing behavior by encouraging consumers to stop buying new things seems more difficult than finding a viable applicable alternative physical solution.

Environmental Vocabulary

The Runner

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The memories bar takes us back to the childhood, remembering the events in every detail as we watch it closely as it rides its strong legs to get them on the wide ground. It is very quickly disappears from sight. We were motivated, and our strength leads us to the challenge to catching it. We remain in a long race by which our breathe stops in the moment of win. Then we are fully aware that our hands are empty except from the air, and we are disappointed that it is being laid in the nearest branch declaring the win for it and its peers. The naughty of childhood, the love of adventure and acceptance of the challenge kindle on us the fire of thoughts and innovation, not for its delicious table, but for the instinct to win and triumph. How many of them were trapped in the traps and then released into the air safely and peacefully. This is to give all the parties the taste of success and share the euphoria of victory and freedom.

It is commonly live in wild areas, gravel plains, farmland, and also familiar to sand dunes, while it rarely seen in high mountain areas, as it stays mostly on the ground and is little preferred to fly. It is Running very fast and hard to be caught. In case of danger immediately spreads out its wings and flies a short distance to settle on the nearest tree. Its bright, beautiful colors mixed with brown and yellow give its relatively large body (average length 32 cm) a perfect beauty, perhaps for this reason the Arabs called it Abu Al-Milih (term describes beauty). This combination of colour with its calmness, help it in mastering the behavior of hiding and camouflage. It is not surprising, if someone passes near it may not notice its presence. When it senses the moment of contact, is exposed by its sudden movement and high sound it emits while flying. Its voice is always heard before its quick movement is noticed.

This bird lives in the northern regions of the Sultanate, in swarms of up to 50 individuals. The male is characterized from the female with a thorn in its legs which does not exist in the female, and difficult to distinguish between them from the external shape. Its frequent stay on the ground gives it a great opportunity to look for seeds and worms. It digs the ground with its strong legs to eat as much food as it can afford. The land is its home, its food, its drink, and its nesting place, where it digs a scrape of the ground out of sight or under dense trees, in it places an average of about 12 eggs. Then the chicks come out after incubation period of about 20 days.

The beauty of its shape coincides with the beauty of its distinctive whistling voice, such as a high-intensity, intermittent like a telephone call, fills the horizons, especially in the early morning or just before sunset, distinguishing it from other kinds of birds. Having crossed the profiles of its qualities and characteristics, the memory bar takes us back again to relive the memories of the childhood with this beautiful, unique bird, called See-see-partridge.

Let's our beaches clean

Marwa AlMukhaini