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Gone are the days when we woke up in the morning to look outside and see the snow piling up behind the window, to run out and measure the height of the snow to see if there was any chance that the schools might close. Now things have changed. Kids look out to see how far they can see through the thick dust in the morning air to guess if there is any chance that the schools may close “due to airborne dust (micro particles) carried from neighboring countries.” Now twenty or so years have passed since those days, and when after every so many years we are fortunate to see any snowfall, however dismal, we celebrate the day by taking sweets to our workplace.

Why did it turn this way? What is the source of this damned dust? Is it true, as all sorts of authorities are vying to find the culprit outside borders, that it is solely due to arid conditions in the deserts of Iraq or Saudi Arabia, or perhaps even further? Ecologists have a different view. They think that what we face these days is of our own doing.

In those days when there were news of another dam being built on another river, when woodland habitats were being clear cut to open the way for a new road, when concrete walls were being erected one after another by Chinese technicians showing off their technological might, when ribbons were being cut to inaugurate yet another big project… and when waters were being collected upriver and dust of death being poured downriver, we should have thought of today. Now that powdered clay from the bottom of our dried-up wetlands are taken to the air by the slightest breeze we find an excuse in the sands of this or that neighbor without explaining how sand and gravel from desert, given their weight, could travel this far to engulf even our central cities?

A professor once said that each hectare of forest can settle up to 6 tons of dust (micro particles) under natural conditions. That is, all those hectares of woodlands that were trusted to the cutting edges of chain saws could have been a deterrent to the dust powders (micro particles) that are now considered our unwanted guest. Yet what we did was indeed to invite this guest by opening and paving its way by all those chain saws, loaders, concretes, and tarmacs. We give a million dollar to our Iraqi brethren and ask them to put mulch on their soil; how wonderful that we can now put all the blame on them.

Instead of all these evasions, let’s give back to our wetlands the water that is due to them and let’s bring life back to our forests by ceasing the chain saws. Let the nature do its work. And then the snow will once again fall.

masoumeh safaei
On September 23rd and 24th 2011, Persian Wildlife Heritage Foundation (PWHF) organized a cleanup trip to Miankaleh Peninsula, a “protected area” and bird sanctuary on the south-eastern part of the Caspian Sea. Several environmental NGOs and socially responsible companies collaborated in this clean-up project and 200 volunteers from all age groups participated in the event. Miankaleh is called “migratory birds’ paradise” and is considered an important wintering area for various rare birds, including flamingos. Pollution caused by waste in nature has become a threat to these birds’ habitat, as birds swallow toxic wastes and their feet occasionally get entangled in clumps of nylon threads that gradually form after nylon ropes or fishing nets are abandoned on the shore by the fishermen. Toxic substances released from the abandoned garbage also intoxicate the food chain and end up in what the birds feed on.

Sam Radjabi, the project manager, assessed the response to our invitation very positive. He said: “Despite some difficulties, the participants managed to collect up to 6 tons of litter which is a considerable amount.” Radjabi also thinks that a major impact of these kinds of programs is to change the participants’ point of view: “when we directly encounter so much waste our whole attitude and behavior towards consumption changes and we become conscious of all the waste that is associated with our consumption, plastics in particular.” He added that: “The most important goal here is to change the way people consume in order to reduce waste production.”

HoumanJowkar, PWHF’s wildlife expert, notes that most of the garbage in shorelines originates in towns and villages along the rivers that feed into the sea and is eventually carried onto the shores by the waves. According to him, “this problem needs to be solved from the source, i.e. at those towns and villages that dump their waste into the rivers. This really works like a vicious circle, as waste dumped in the rivers keeps on coming back at us.”

The waste collected during this event mainly consisted of plastic bottles, fishing ropes and nets, plastic bags, syringes and all kinds of other garbage. Garbage collected by volunteers were disposed in special bags and lined up along the shore. With prior arrangements with Gorgan Recycling Plant, they dispatched their trucks and took all the bags to their facility for recycling.
Mohitban Society have handed in the final report of their research regarding the status and conservation management of the mammalian fauna of Central Zagros.

Method of Study
The initial stage of the project included library research, identification of target points based on reports, time frame planning for sampling, and determination of field stations for studying important rodents. To catch samples of small mammals such as insectivores and rodents, we used cage and Sherman traps as well as spring traps. Capturing samples of bats involved placing invisible nets on cave entrances, water canal openings, and rooftops in the evenings. The bats that were captured by this method were put in plastic containers and then measured.

Population indices of important species in the habitats studied included various presence markers such as dens, footprints, feeding remains, droppings, reports by local people, and direct field observation. The next step in the project is to find proper spots for installing camera traps to survey the numbers of large species in each habitat.

Future stages of the project are the following: taking photographs and identifying collected samples and markings of rodents, insectivores, bats, and other mammals; identifying habitat factors that impact the presence of important species in the region; recording the GPS coordinates of direct observation points or signs of each species; mapping the dispersion of important species; determining threats to such species; studying the factors that have helped sustain populations of each species; defining necessary criteria for constant monitoring of mammals in the area; and proposing necessary measures to manage and conserve the habitats in the region being studied.

Initial Findings
A positive achievement of this project was to observe, record or capture samples of species that were not reported in the region for many years. Some species were found in new locations in Central Zagros which, given the time lapse between this study and similar studies in the past, seemed normal. Weasel as the smallest carnivore found in Iran was seen at least in three different locations: near Katak village, in Qeysari area, and around Khafr village. Stone marten, a species of mustelidae family, was photographed in Dena Protected Area by a camera trap. Perhaps otter was the most important species of mustelidae family whose presence in rivers like Sabzkuh and Karoun was established. Among other carnivores, red fox and jackal were observed in almost all regions of Central Zagros and their pictures were taken by camera traps at least in two occasions. Considerable evidences of the presence of brown bear, including footmarks, droppings, and broken branches of fruit trees, were found. This testifies to the wide dispersion of this animal in the area. The frequency of reports on bear presence and activity has partially to do with bear-human conflicts over such things as fruit gardens for which bears are notorious. In the last trip made by our researchers to Dena region, a mother brown bear and a cub were captured on camera trap in Laysorkh Valley at the foothills of Pazanpir Mountain. Also, 10 incredible pictures of brown bears were taken by a camera trap in one single night in Rigan Valley. Boars were also present across the whole region. Other ruminants such as wild sheep were only seen in Tange Sayyad. It seems that they are extinct in other areas or their numbers have dropped so much that they can hardly be observed.

As far as small mammals are concerned, Iranian jerd enjoys a wide range. At least one species of insectivore among its order is new to this region. Valuable species of small mammals such as smaller horseshoe bats were once again reported in this area. Moreover, Dashtie Raz in Dena Protected Area with its old growth of oak trees was recognized as the best habitat in Central Zagros for Iranian squirrel.
Bird ringing in Iran

Ringing is known as one of the common methods for studying birds’ migration routes. This method defines presence points of these birds in their distribution area and plays an important role in the species’ conservation. This method also provides us with biological information on birds such as their life span. Scientific bird ringing started for the first time in 1899. Today, 800 000 birds are ringed only in Great Britain, annually.

Divid Ferguson’s bird ringing initiated in Iran in 1966 under the supervision of Ferguson and continued until 1974. It was in 1974 when DOE employed a full-time ringer named Francis Argyle. 16000 birds of 223 different species were ringed by the end of 1975. Ever since, no regular and long-term bird banding project has been in effect and therefore information on birds’ migration ecology is still incomplete, making this practice ever more necessary at this time. The Zistandishān-e Caspian Institute has started bird ringing for birds with the collaboration of Department of Environment of Iran. To execute this project the support of public and private organizations is indeed needed.

Bird ringing in Isfahan

On June 16th 2011, bird ringing was attempted in Isfahan Province for the first time since the Islamic Revolution. Several chicks of the breeding birds of Zayandehrud Dam (Common Tern and Armenian Gull) were ringed in this project. Knowing that the eggs of these two species do not hatch at the same time, the ringing process was spread over a two week period. Adult individuals of other species of migratory breeding birds, to whose nests and chicks were accessible, also ringed. This project was undertaken as a joint project between the Caspian Institute and the Isfahan Office of the DOE.

Considering that the Armenian Gull has limited breeding areas in Iran (Shahid Kazemi Dam in Kurdistān Province, Meyghān Wetland and Isfahan’s Zayandehrud Dam), there is dire need to know the species’ wintering points and migration routes for its better conservation. Bird ringing has also started in Ghaleh-Now marsh in southeast Tehran with a prospect of ringing migratory birds, specifically the Passerines.

Several chicks of the breeding birds of Zayandehrud Dam (Common Tern and Armenian Gull) were ringed in Isfahan Province.

Photos: Maryam Omidi
Improving wild sheep habitat in Varjin Protected Area

Hamid Zakeri

One of the earliest projects undertaken by the Persian Wildlife Heritage Foundation was to restore water resources and provide winter feed for the wild sheep population of Varjin Protected Area in Northeast Tehran. Varjin Protected Area has been an important habitat for a relatively large population of Central Alborz wild sheep since many years ago. Proximity to Tehran and gradual encroachment of residential areas around the Protected Area has spelled many problems for local wildlife. Main threats include growing urbanization, expansion of roads and private gardens, and separation of local animals from outside populations. In the past, the indigenous wild sheep used to move seasonally between Vargin and other neighboring habitats such as Lar Valley, Sorkhe-Hesar, and Khojir. Now, they are almost completely cordoned off from all sides by human settlements and have to spend their entire time within parameters of the Protected Area if they are to survive.

To prevent the wild sheep from descending into urban areas in search of water, PWHF initiated a project three years ago and provided safe and permanent water resources inside the Protected Area. A well was dug and facilities were installed to pump water uphill into a water hole which was built well above reach of humans in the Southeastern part of the Protected Area. Extra water was used to irrigate the land around the water hole to cultivate alfalfa as a supplement fodder for winters. Moreover, natural grass of the area was annually harvested to further supplement winter fodder for the animals. Another water hole was built in Tork Mazraeh within a safe distance from urban areas and roads in the Southwestern section of the protected Area and a reservoir and pumping facilities were also installed. Availability of water and sufficient food in winters contributed to keeping the sheep within the Protected Area and significantly lowered fatalities caused by animals’ crossing over into neighboring lands or roads.

Overall, the project has made a dramatic change in the well being of wild sheep by compensating for factors which in the past helped sustain sheep populations in the area. According to some estimates drawn by Lavasan Office of the Department of Environment, sheep population has increased. Such a dramatic rise in numbers has hardly been seen in other Protected Areas across the country. This achievement once again indicates the benefits that can be gained through cooperation between the private sector, the NGOs and the governmental agency in charge of environmental protection.
Keystone species are species which interact with other species of other populations and which a decrease of their population or their total extinction leads to a greater damage in other populations or ecosystems. Wild boars, squirrels and red fox are among keystone species.

Effect of road on threats to Wild Boar Populations in Golestan National Park

Masoumeh Safaei & M.Reza Mohamadi

Frequency of boar sightings in Golestan National Park should not be thought as a basis for downplaying the threats to this species’ population. In the last 6 years, based on estimates drawn by experts, the numbers of this species have been steadily decreasing. Due to a growing trend in habitat destruction, rise in vehicle traffic on Asian highway that passes through the Park, increase in issuing permits to carry guns, and poaching, this valuable species, which is considered a keystone species too, has faced a considerable drop in population and it seems that the decreasing trend has even intensified in recent years.

Boars form one of the largest populations of large species in Golestan National Park and are visible during day and night more than any other species. This is perhaps due to the fact that boars are “road friendly” and roam around roads in search of edible items thrown out of passing cars. As you can see on the map, the dispersion of this species is limited to the areas close to the road which passes along the Madarsu River (boars are heavily reliant on water resources) and a small region in the Eastern side of the National Park.

Based on the data collected in a study that began in 2010, the number of boars killed due to car accidents on the Asian Highway increased from 13 and 18 individuals in 2005 and 2006 to 50 in 2007, 43 in 2008, 90 in 2009, and 117 in 2009. This is clearly indicative of a rising trend in road kill for boar populations in this area. If we add to this the 200 or so individuals killed by poachers every year (given most optimistic estimates), and considering a total of 4000 or so boars that are estimated to live in the Park, we are annually losing as much as 8 percent of the boar population. It should be noted that the drop in boar numbers in the Park is considered the most important threat to the survival of Park leopards which mainly prey on boars.

Currently, in spite of more than 80 bridges and water channels that provide passage under the road for boars (confirmed by 226 out of 227 pictures taken by camera traps installed in underpasses in the course of the same study), the frequency of boars killed on and around the road are quite high. Obviously, with the construction of the new road and elimination of many of the underpasses and destruction of habitats around the road, we will witness even higher fatalities and perhaps more isolation of different boar populations once they are cut off from one another. On the other hand, the increase in gun ownership and the ease with which hunters can access animals through this main road have led to increased poaching of boars, as evidenced by more than 70 cases of illegal hunting that were discovered in 2010 alone in the park. Obviously, we must add to this figure the cases of illegally hunted animals that are quickly removed by poachers who easily access roads that tend to concentrate around the road.

The following are the main threats to boar populations in Golestan National Park:

- increasing poaching
- rising trend in road kills
- the division of boar habitats into two parts due to the construction of the new road
- consumption of foodstuff left by the passengers of the passing cars and tourists in the area which often means swallowing of the plastic wrappings and packaging that in many cases lead to gastrointestinal problems and even death for the boars.

Actions that can help reduce the trend in boar fatalities due to the aforesaid threats include: a comprehensive program to educate tourists not to throw garbage and to carry their waste outside of the Park parameters, increasing patrols by game wardens to prevent poaching along the road, keeping the existing underpasses and perhaps even increasing them along the road that is being constructed, installing proper signs that warn drivers of passing animals to reduce animal deaths due to collision with cars.
A study of birds of Choghakhor Wetland

Afshin Zarei, Saeed Cheraghi, Mohammad Pourhedayat

Birds are considered important markers of biodiversity; their abundance in an area is an indicator of diversity in other flora and fauna as well. As such, study of diversity and abundance of birds in natural environments is considered an important line of enquiry for ecologists. Zistandishan-e Caspian Institute (Iran Zamin) has begun a series of expert studies since 2006 on water birds. Some of the more important areas that were studied include: Meyghan wetland, Gandoman wetland, Hana Dam, and Dorudzan Dam. Given the importance of Choghakhor as a registered international wetland, monthly trips were made to the area to conduct systematic observations in the period April 2010 through May 2011. The Choghakhor research project funded and backed by the Central Zagross Conservation Project and DoE has been concluded. There are 286 small and large wetland areas in north, west and south of Iran. Chaahaarmohal and Bakhtiyaari Province is home to two main wetlands, Choghaakhor and Gandomaan, and a few other smaller wetlands. Choghakhor is considered an important winter destination for migratory birds and is listed among 105 Important Bird Areas of Iran. Choghakhor ranks 8th among 75 wetlands in some studies that have attempted to rate wetlands on the basis of five criteria of birds, fish, threats, socioeconomic issues, and conservation status (Ramsar Convention 1971). Such ranking is a further testimony to the importance of this wetland among the country’s wetlands.

A good example of freshwater wetlands in Zagros, Choghakhor is located to the west of Boldaaji township in Borujen district of Chaahaarmohal and Bakhtiyaari Province. The height is 2270 m a.s.l and its average depth is 3 meters. It receives its reservoir of water from rainfall and various high flowing springs, such as Sibak, Tange-Syaad, Zordegaan, and Oregaan, which are mostly in the west and south of the wetland. The area covered by the wetland is around 1,500 hectares. Choghakhor supports 1 percent of the local population of Ferruginous Duck and two endangered species namely White headed Duck and Marbled Teal have been observed in this wetland in winter. The area supports a large population of Eurasian Coot, especially during migration season. As mentioned earlier, Choghakhor is particularly important for wintering birds, including White Egret and Mallard, and is also a natural summer habitat for White Stork.

During 14 months of study and after 15 visits to the area, 102 species of birds were identified. It was found that the population of wading birds is always smaller than water birds. It seems the main reason for this difference in numbers has to do with the gradual shrinkage of habitat for wading birds which heavily rely on muddy areas around the wetland. Such areas were at their highest during April and May and shrank considerably during summer and autumn due to lower rainfall. When water recedes, dogs follow the livestock and enter the muddy areas and pose as further threats to waders. This is in contrast to sections of the wetland where deeper water limits dogs’ access. Another significant threat to the wetland is drainage from farmlands containing fertilizers, herbicides, and other poisonous chemicals, the impact of which is often evident in the scores of dead fish lying along the shores. Illegal fishing and hunting are considered as other threats to the wetland. Scores of fishermen can be seen along the wetland all year round, even during spawning season. According to local eye witnesses, waterfowl that use this wetland in their migratory routs are subject to heavy poaching too.

Choghakhor Wetland is particularly important for wintering birds, including White Egret and Mallard, and is also a natural summer habitat for White Stork. / Photos: Mohammad Pourhedayat
Destruction of wildlife habitats along with poaching and over-hunting are considered the major causes of reduction and gradual extinction of many species of wild animals in Iran. Human beings, especially people living close to wildlife habitats, play a major role in destruction of all living beings and are usually the sole cause of direct reduction of surviving game animals. Those human behaviors that lead to the destruction of natural habitats and wildlife populations in most cases stem from people's lack of knowledge and low education about conditions of wild animals and threats to their existence that are caused by humans. Wildlife documentaries that add visual attractiveness to a professional script entailing a clear conservational message can serve as excellent tools in educating and sensitizing people about dire conditions of nature and wildlife.

Of all media of communication, television is by far the most highly used medium for most Iranians. They tend to receive most of their information through this medium. As such, environmental activists and nature lovers have no choice but to resort to television to convey their messages across to the largest numbers of audiences, especially in far away rural places where local human communities directly impact wildlife because of their proximity to natural habitats. The Islamic Republic of Iran Broadcasting (IRIB) has most parts of the country covered by its networks. Hardly any community can be found which may not have access to national television networks. Therefore, we must try our best to use this medium to reach out to people through professional wildlife documentaries that seek to increase their interest in and knowledge of their country's wildlife. Such documentaries could serve to cultivate among viewers a sense of appreciation for our natural diversity and to direct their attention to the dire need for conserving this incredible heritage. Unfortunately, some documentaries relating to Iran’s natural attractions and its wildlife that occasionally appear on the TV screen are merely a mixture of beautiful natural sceneries with spooked animals running away from the camera while a narrator rambles meaningless sentences in a poetic tone. Such documentaries can hardly serve to raise any consciousness about the dangers that threaten Iran's nature and wildlife. Those involved in producing nature documentaries for television should use the limited opportunities that they find to access wide audiences properly and educate people about the critical conditions of our natural environment and the urgent need to protect our dwindling wildlife.
Citizens of Tehran take part in a survey about air pollution

A scientific survey held in March 2011 led to notable findings on citizens’ perspectives on Tehran’s air pollution problem. For most of the citizens who took part in the survey, the Capital’s air pollution was considered a major urban problem. Eighty-four percent of the respondents categorized this issue as “important” or “very important.” When asked to compare air pollution with some other urban problems in paired comparisons, the respondents rated unemployment, housing and high prices as more important relative to air pollution.

In response to a question that sought to find out the relative weight that the respondents assign to the main sources of air pollution, 70.3% said that gases emitted from vehicles had a more important part in air pollution than pollutants released from factories and domestic heating.

Most respondents cited over-production of vehicles as a major cause of Tehran’s air pollution. They also believed that the most effective way to reduce air pollution was to phase out old and polluting vehicles. When asked to express their level of agreement with a range of actions that the citizens themselves could take to reduce air pollution, “using public transportation” received the highest approval rate, with 92% of the respondents “agreeing” or “highly agreeing” with the statement.

This research, held by Dr. Kavous Seyed-Emami of Imam Sadeq University, was based on a representative sample of adult population.

Iran is still host to a wintering Siberian crane

A Siberian crane has flown in at 6 AM Tuesday October 25th to Fereidoukenar in Mazandaran. The Siberian crane is a critically endangered species of crane. Three distinct populations of this magnificent bird wintered in Iran, India and China. Of these, the Indian -central- group is extinct and none have been sighted in recent years. The eastern group wintering in China is relatively stable with approximately 3000 birds remaining. The western population spends its winters in Iran, but of these birds only one has returned after two years of absence and has been nicknamed Omid - Hope - by the media.

“Lar, the Paradise I Knew” was awarded the CIC Environmental Literary prize in May 2011

The International Council for Hunting and Game Conservation (CIC) awarded its 2011 “Environmental Literary Prize” to Mr. Abdolali Yazdani’s book, Lar, the Paradise I Knew. In his book, the author compares Lar Valley’s situation today with what it used to be in the past, and points out its gradual degradation, and finally reaches out for help to protect what is left of this rich and natural habitat. It provides useful historical information on how Lar Valley and Lar River were formed due to Mount Damavand’s volcanic activities. It also points out the negative effects of a dam that was built several years ago on the region’s wildlife and especially on a species of brown trout found in the main river and its tributaries. The focus on brown trout in this work may make us think that this is merely a book on fishing, whereas the exposures on trout fishing basically serve to shed light on the gradual degradation that Lar has faced in the aftermath of the construction of the dam and the main causes for it.

The award included a medallion and a certificate of recognition from CIC which were given to the author in the closing ceremony of the 58th annual meeting of the CIC. More than 500 CIC delegates from around the world attended this meeting which was held in St Petersburg, Russia, on May 15th 2011. The CIC jury, consisting of 7 members from 6 different countries, voted unanimously to grant this award to Mr. Yazdani. A compressed translation of the book had been handed out to all members of the jury back in November 2010.

Siberian crane, Winter 2008, photo by: Houman Joukar