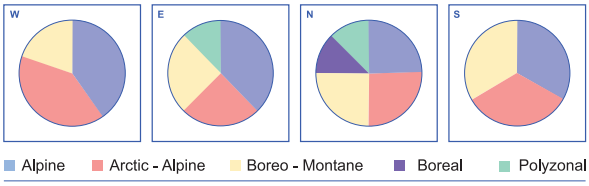
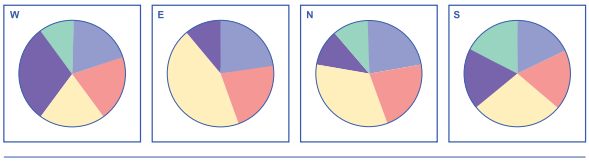
Mt. Big Iremel', 1565 m a.s.l. (RU-SUR-BIR)



Mt. Mal. Iremel', 1437 m a.s.l. (RU-SUR-MIR)



Mt. Dal'ny Taganai, 1109 m a.s.l. (RU-SUR-TAG)

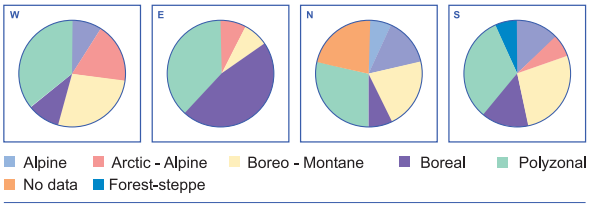


Figure 3: The percentae of species with diferent types of distribuation lalittudnal aspect or zonobime/attilsiome preference at the summit of the target region, South Urals.

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Walking through My Land: A little Sparrow

Walter Bishop V.

With a diversity and quantity that makes them almost annoying, the sparrow, member of the *Passeriformes* order and of the *Emberezidae* family, is mentioned in an incredible amount of poems, songs and in plain literature of all languages.

In Mexico there is a famous song about this little bird: "Gorrioncillo Pecho Amarillo" (Yellow Breasted Sparrow) composed by Tomas Mendez and sung by all the Mexican country singers. In English there is an Australian song written by Bruce Woodly for the Seekers, appropriately called "The Sparrow Song".

"Fly little sparrow
High above the clouds,
Looking for a place to
Lay your weary body down.

Fly on little sparrow
Northward to the sun,
Wonder if you'll ever
Find yourself a home."

These are the first and second verses of this melancholic melody, that I bring to your attention because they exemplify the plight of one of Mexico's sparrow species catalogued as 'Endangered', and about to disappear forever (2008 IUCN Red List Category, as evaluated by BirdLife International, the official Red List Authority for birds for IUCN).

The Sierra Madre sparrow, *Xenospiza baileyi*, Gorrion Serrano in Spanish, is the only species of the genus *Xenospiza* and is endemic to Mexico. Because of the loss of its habitat, it can only be found today in two locations in the country: one in the State of Mexico; and the other in the State of Durango. This is

Sierra Madre Sparrow. Photo: W. Bishop V.

a small bird of just five centimetres or less. Most of its feathers are in dark brown tones with creamy-white sort of eyebrows and a white-gray-black streaked breast with a very distinctive black central spot.

The mountain valleys of the Sierra Madre Occidental, populated with bunchgrass *Muhlenbergia macroura, M. Affinis*, were where the Sierra Madre sparrow lived and made its nests. Due to the loss of this particular grass caused by agriculture, i.e. the conversion of valleys to farm land by mountain inhabitants and the burning of bunchgrass in the dry season, the sparrows are in bad trouble.

The little bird was discovered or described in 1889 in the "Bolaños Mountains of the State of Jalisco" and was thought to be a hybrid of the Song sparrow. It was not till 1931 that Bailey confirmed the species after finding more than a dozen of the Sierra Madre sparrow in the mountains of Durango. Later on, and for a short time, it was thought that there might be some difference between these northern and southern populations, but it was determined that although there is no genetic connection between them, they are not distant relations, but are exactly the same.

Anyway, and what I was trying to get to, is that lately, a rainy and windy Saturday afternoon in the month of March, I was invited by some good friends from El Salto (a mountain town on the Km 100 of the Durango Mazatlan highway) to visit the area in question, to look for the elusive bird. This was something that we had been doing for the past year without success, as we needed for several reasons to confirm its existence or disappearance.

We were to meet in El Salto at the gas station in front of an old locomotive that stands as a monument to the past, when it was used to bring logs from the forest before there were any trucks and roads in this old lumber mountain town. We were also waiting for three Americans interested in the sparrow, together with a cattleman from the region who was our guide. We made a group of seven people in two vehicles, "cruising" the countryside to see what we could find.

Beforehand we had asked for permission to go into the communal property, but we had not driven a very long way before we had to ask permission again. This time officially to the Mexican army, because, as it turns out, the soldiers from a nearby fort have a training field with firing ranges that includes bombs and mortar fire exactly in the territory of our friend the Sierra Madre sparrow.

What bad luck! Not only is the habitat of the sparrow shrinking by the day, but the only place they have left to live in has become a heavy shell firing range.

This is a problem. A little one if we consider the birds' size or a big one if we think of the implications that this might have: the disappearance of a species from our earth. Some sort of arrangement has to be made. There has to be a "cease fire" - it sounds ridiculous - but a solution has to be found that is fair to both parties. On one side, we have our respected armed forces (Mexican) with a big investment in infrastructure, and on the other side, we have a not very interesting endemic of Mexico, a little bird, with God's given privilege to existence and a right to a piece of the land on this earth. We certainly hope that something can be done.

Because of the indignation and consternation that this unreal story causes me, I almost forget to conclude the search that we were on and where we started. And yes, after looking all the past year for our friend the little sparrow, at last, on this cold and rainy afternoon, we saw at least three of the Sierra Madre sparrows perching on the long blades of the bunchgrass where it lives, acting as if nothing was happening, defying both its fate and its destiny.

In search of the sparrow. Photo: W. Bishop V.

Sources: Sierra Madre Sparrow - BirdLife Species Factsheet

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Metsovion Interdisciplinary Research Centre (MIRC) Database

Angeliki Geronteli, on behalf of the N.T.U.A. Metsovion Interdisciplinary Research Centre (M.I.R.C)

The Metsovion Interdisciplinary Research Centre (M.I.R.C.) of the National Technical University of Athens (N.T.U.A.) was founded in 1993. Its principal aim is to contribute to the protection and development of mountainous environments and local European cultures The activities of N.T.U.A. M.I.R.C include interdisciplinary research for the Protection and Development of Mountainous Environment and Local European Cultures, teaching and provision of continuing education, as well as conducting seminars and conferences relevant to the broader object of M.I.R.C., working in close cooperation with other universities, prefectures, local governments, local social groups, cultural, research and other organisations.

The research group of N.T.U.A. M.I.R.C. has initiated the creation of a database on the mountainous areas of Greece, including the protection and development of local cultures, interactions and interdependencies with the mountainous environment as a contribution to the region's Worth-Living Integrated Development. This initiative is of particular importance for Greece, since it is one of the two most mountainous countries in Europe (along with Austria) and faces the same problems as all the other mountainous areas.

The first area selected for the launch of the database is the region of Epirus. This is a border region of Greece with geopolitical importance, since it communicates, has relations and interacts with the neighbouring regions of the Balkans and the country's centre. At the same time Epirus is the most mountainous region in Greece. It is made up of 67 mountainous municipalities with 444 mountainous municipal or communal departments. It is also one of the most sparsely populated and poorest regions in the European Union (EU-15), although very rich in terms of nature and culture.

This database is a research initiative, drawing on bibliographic and internet sources, which tries to identify the natural and socioeconomic reality, cultural elements, traditions, craftsmanship, local environment and biodiversity in every mountain community of Greece. At the same time, this database is a way to investigate the interactions and interdependencies and their changes through time, between natural and human resources, as well as focusing on the problems and needs that occur within these multi-dimensional relationships.

The database includes 25 regularly updated data-fields for each mountainous community/municipality, such as: altitude, permanent population, historic monuments and museums, traditions and festivals, local products, traditional architecture, mountains, water resources, flora and fauna, biodiversity and protected areas, interactions between environment and local cultures, problems and needs etc.

It is known that Greece is regarded as a biodiversity hotspot in Europe, as well as a hotspot for endemism in Europe and the Mediterranean region, due to its topography with great mountain chains along the central part of the country and other mountain ranges. However, according to the Greek Ministry of Environment, the present rate of Greek biodiversity loss is relatively low compared to other European countries.

Epirus and Pindos Mountain, in particular, are well known for their high species and ecosystem diversity, for genetic variability and endemism as well as for medicinal plants and herbs that are noted for their antimicrobial and pharmaceutical properties. There is an obvious need for the protection of Epirus' biodiversity as a whole, with respect to human beings and their natural and cultural environment. With this in mind, an action plan has been implemented which includes the set up of three national parks that make up the most extended environmental protection area in Greece, covering the largest part of the mainland, from the borders with Albania, to Pindos Mountain, Tzoumerka-North Pindos and Grammos Mountain and the regions of Kastoria and Ioannina; a distance of approximately 150 kilometres.

Certain barriers have to be overcome in order to implement this plan properly and effectively. These include contending with bureaucratic and administrative issues that cause great delays, proper coordination of the competent authorities and avoidance of political expedience.

Essential prerequisites for the Worth-Living Integrated Development of the regions and the protection of their biodiversity are:

- Thorough investigation on the geographic distribution of species and the possible changes and losses in biodiversity due to climate change, land use and other man-made activities;
- Systematic collection, mapping, monitoring, analysis and interpretation of the necessary reliable, diachronic and up-to-date data on the area's natural and socioeconomic reality. In addition to statistical data, these Integrated Surveys of mountain areas require the use of photointerpretation, remote sensing methods and techniques in Geographic Information Systems (G.I.S.) for the systematic mapping and monitoring of biodiversity;
- Supply of the necessary financing and overall planning with scaling of needs and priorities;
- Provision of experienced and interdisciplinary trained scientific staff and volunteers;
- State-of-the-art specialised technology, infrastructure and know-how;
- Collaboration with local authorities and relevant national and international bodies;
- Distribution of knowledge and environmental awareness to local populations, students and educators;
- Adoption of a holistic and integrated view regarding the "development" of each area, taking into account its natural, socioeconomic and cultural advantages, potentials and limitations.

The database will be uploaded at the N.T.U.A. M.I.R.C. website *www.ntua.gr/MIRC/* in Greek.

For further infrormation, contact N.T.U.A. M.I.R.C. *(naturesl@central.ntua.gr or rslab@survey.ntua.gr)* or visit the website at *www.ntua.gr/MIRC/*

Technological Innovation Servicing Biodiversity

Lourdes Chuquipiondo (RAMP PERU)

Samuel, Antolin, Corina, Maria…. are only some of the names of ordinary people, of people like us. However, all of them have a common characteristic that unites them: they are creators of technology.

An innovator demonstrates an ecological stove. Photo: Fogon Multiusos Sr. Cuchillo Cusco.