



Palestine Institute for Biodiversity and Sustainability

Palestine Museum of Natural History

ANNUAL REPORT 2019



Preface

The challenges of accelerating human destruction of our natural world require global and local responses. Even in the best of circumstances, research, education, and conservation efforts struggle to meet those challenges. In Palestine under colonization and apartheid, these challenges are compounded. Yet, issues such as biodiversity, conservation, and sustainable development cannot wait for the peaceable and just resolution to the political situation. Further work on these issues is itself a transformative part of the struggle for freedom. The Palestine Institute for Biodiversity and Sustainability (PIBS) and its Palestine Museum of Natural History (PMNH) were founded at Bethlehem University and opened our doors to the public in April 2017. This report highlights the amazing accomplishments in the calendar year 2019 in education (of thousands), conservation (protection of natural areas), research (30 publications), and community service would not have been possible without you to whom this report is presented: **funders (individual and institutions), team members, volunteers, executive board, and partners (in governmental and nongovernmental entities)**. This report is dedicated to the thousands of young people (school and university students and other youth) who worked with us in 2019 and taught us so much about hope and the future.

- *The team*

Background

The Palestine Institute for Biodiversity and Sustainability (PIBS) and its Palestine Museum of Natural History (PMNH) at Bethlehem University is a national institution that works to research, educate about, and conserve our natural world, culture and heritage and use knowledge to promote responsible human interactions with our environment.

Our Goals include:

- Explore the diversity of the fauna, flora, and human ethnography of Palestine.
- Promote environmental protection and responsible interaction between people and the environment.
- Use the knowledge gained, and the books and databases and collections, to promote science education.
- Use research results in areas such as biodiversity, history, culture, permaculture and biological control to promote sustainable communities, focusing on marginalized communities

We develop and increase respect: a) for ourselves (self-empowerment), b) for our fellow human beings regardless of background, and c) for all living creatures and our shared earth. PIBS/PMNH and ecological gardens at Bethlehem University are an oasis for people and wildlife in Bethlehem, Palestine, a place of conflict and rapid transformation. It is a place of learning and rejuvenation for Palestinians and international visitors. A briefing on our activities is found in this short video
<https://youtu.be/BPhFLOsEIM0>

and on the website <https://www.palestinenature.org>

Projects

Building the Capacity to Protect Palestinian Land and Heritage through Museology and Eco-Tourism

Project Achievements:

- Created the Palestine Ethnography exhibit visited by over 3,000 visitors since its opening in April 2019
 - Acquired 123 tangible objects, researched them, catalogued them, and preserved them.
 - Acquired more than 130 books related to cultural heritage
 - During July and August 2019, with our partner Masar Ibrahim Al Khalil (MIAK) we implemented 20 workshops in 19 villages/cities. 471 (303 females, 164 males) attended these workshop.

Duration: Sep 2018 – Aug 2019

Funded by: British
Counsel/Cultural
Protection Fund

Objective: the project focused on innovative means for the protection and preservation of forms of Palestinian cultural heritage relating to the natural history and agriculture.

- Developed an educational game application aimed to educate children about cultural heritage related to nature and agriculture through simple games and activities to attract the child's attention and keep it interesting for learning. Apple store [link](#), google play store [link](#)

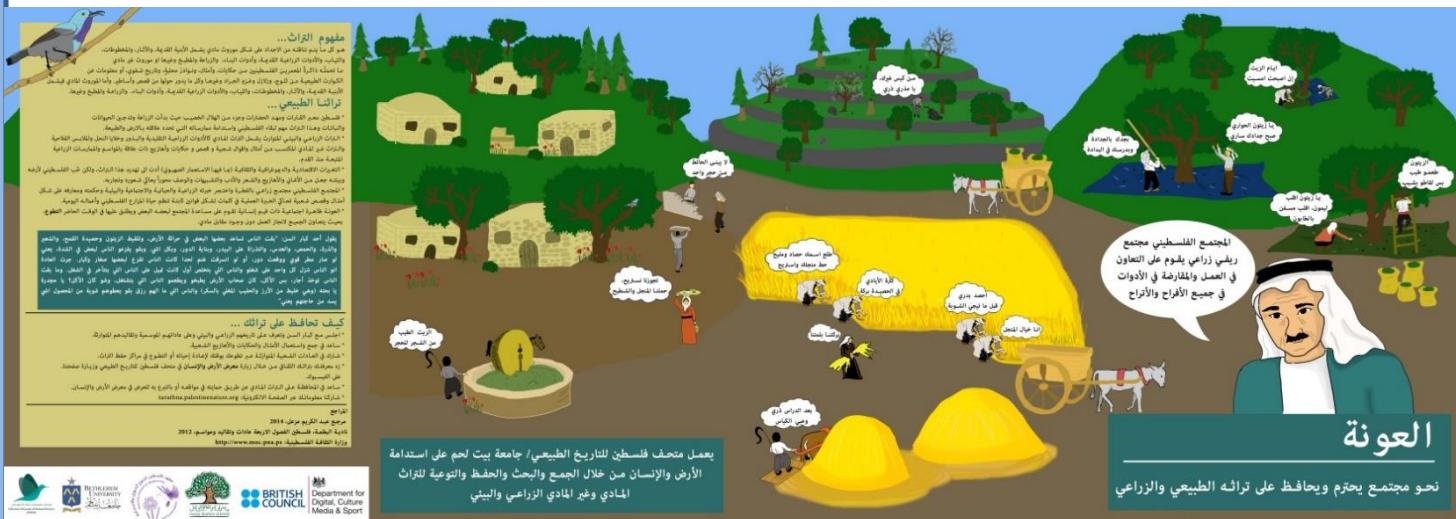


- Created and developed web-based database (1587 proverbs, 510 agriculture terms, 363 agriculture tools, 279 songs, 75 Fauna, 263 Flora and 86 books):

<https://turathna.palestinennature.org>



- Visited and connected with 125 locations (cities, villages, refugee camps). 348 people were involved and provided data, 215 of them are males and 133 are females. Through these and other (e.g. phone, web interactions) we engaged hundreds (via ripple effect thousands) raising awareness and collecting valuable contacts.
 - Organized three environmental hiking trips to raise awareness about agricultural and environmental cultural heritage.
 - An ethnography garden was created and planted with some medicinal and herbal plants.
 - Created the first social media campaign that reached over half a million persons and >65,000 of them engaged. For example, we posted 26 proverbs related to intangible cultural heritage on the museum Facebook page.
 - Delivered programs in capacity and awareness building in heritage conservation (including museology). This included a 4-day training workshops on cultural heritage to increase the knowledge of six field researchers (1 female and 5 males) and the project team, PMNH staff and volunteers and a workshop on museology and cultural heritage in partnership with the ministry for tour guides and key tourism sector personnel (held on 15 July 2019 The training was done to a total of 45 participants).
 - Palestinian Minister of Culture Dr. Atef Abu Sayf and Brother Peter Bray Vice Chancellor of Bethlehem University signed a Memorandum of Understanding on Cultural Cooperation between the Ministry of Culture and Bethlehem University represented by PMNH. The Memorandum of Understanding is intended to strengthen the cooperation and exchange information. It promotes direct collaboration in the field of cultural heritage.



Printing awareness material (Brochure) about Awna (Helping) in Palestine



Gardening and Permaculture for Sustainability in Marginalized Bethlehem Communities

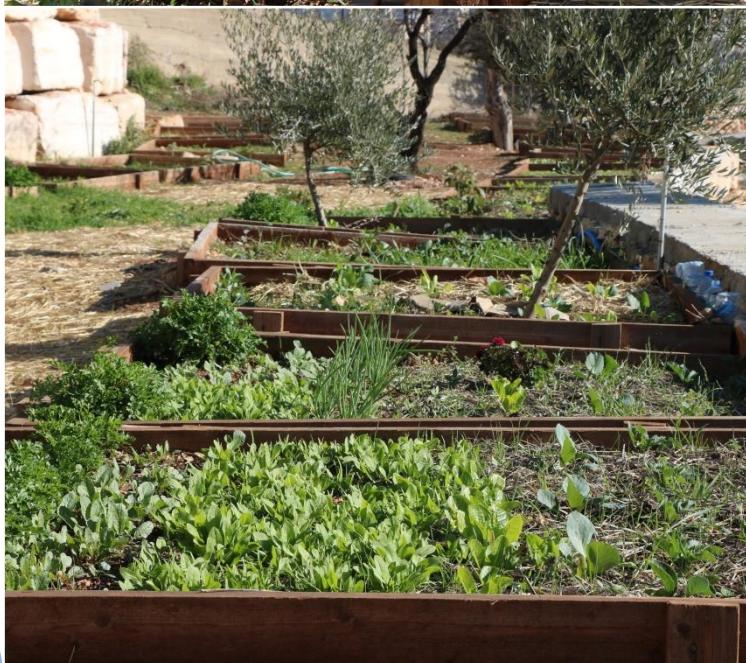
Project Achievements:

- A community garden infrastructure was created that can serve up to 30 families at a time.
- Workshops and trainings for more than 50 persons (60% children) about the principles of intensive environmental agriculture through a set of theoretical and practical workshops.
- Twenty-five applicant families were selected in the first round & benefited by growing varied crops
- We helped building 12 hydroponic system beds for 12 families in their homes in order to sustain agricultural production in homes in light of the lack of agricultural spaces in the city.

Duration: Jun 2018 – Nov 2019

Funded by: Rotary Clubs

Objective: the overall objective was to develop a community garden and permaculture education center serving local marginalized communities and focusing on children.



Socio-Economic Sustainable Development and Environmental Conservation at the Northern Transition Zone to Wadi Qana Protected Area

Project Achievements:

- Did extensive research that documented the value of this pond and its fauna and flora
- Engaged in community education and awareness including erecting a sign on site (in partnership with EQA).
- EQA designated the area as a protected habitat.
- Presented this in a meeting in Uganda (African countries plus Palestine) as a model for partnerships that lead to policy changes and to conservation.

Duration: Feb 2018 – Jul 2018
(PIBS/PMNH team continues monitor and research activities in the area to date)

Funded by: Belgian Development Cooperation (CEBioS program of the Royal Belgian Institute of Natural Sciences)

Objective: Research and conserve the unique fauna and flora of the seasonal Uskar pond, the only location known in the West Bank for endangered fauna and flora including the Syrian spadefoot toad and the Pond Water-crowfoot.

وكالة معا الاخبارية 
 الرئيسية - أخبار - اقتصاد - أسرى - رياضة - مرور وحوادث - الشؤون - الأخبار
 الاحتلال يعتدي على المصلين في المسجد الأقصى
 الأخبار
 الأخيرة تعان موقع "بركة عسكر" منطقة محمية في قلقيلية
 نشر بتاريخ: 26/12/2019 (آخر تحديث: 26/12/2019 الساعة: 14:48)
  0 
 
 فلسطين - معا - أعلنت رئيس سلطنة جودة البيئة عدالة الأخيرة، عن قرار اعتماد موقع "بركة عسكر"، في شمال قلقيلية، موقعاً أثرياً يعود إلى العصر الروماني، حيث يحتوي على آثار تعود إلى العصر الروماني.
 قرية حسناقوط منطقة محمية.

Wadi Qana, in the northern West Bank is surrounded by eight Israeli colonies and eight ancient native Palestinian communities. We worked in Uskar seasonal pond near Jinsafut in the buffer zone. This is the only location known in the West Bank for endangered fauna and flora including the Syrian spadefoot toad (*Pelobates syriacus* already extirpated in Jordan), Pond Water-crowfoot (*Ranunculus peltatus*), the duckweed (*Lemna minor*) and many rare aquatic invertebrates.

Belgium partner in development
CEBioS
museum 

2018

SOCIO-ECONOMIC SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL CONSERVATION AT THE NORTHERN TRANSITION ZONE TO WADI QANA PROTECTED AREA, PALESTINE


CEBioS
Royal Belgian Institute of Natural Sciences
Belgium partner in development

BETHLEHEM UNIVERSITY


A natural pond in Palestine where water collects in the winter until the beginning of the summer, a unique spot for cultural heritage and ecotourism in Palestine.

The created ecosystem supports endangered species as the Syrian spade-footed toad (*Pelobates syriacus*) which is already extirpated in the Jordan and found nowhere else in the West Bank and the water crowfoot (*Ranunculus peltatus*), a rare flowering plant. The protection of this pond can benefit the endangered Palestinian heritage and offer ecotourism opportunities while conserving biodiversity.⁵



© Palestine Museum of Natural History



© Palestine Museum of Natural History

Fig. 9 & 10. *Pelobates syriacus* and *Ranunculus peltatus*

Key message from CEBioSPBnr.14

Climate Change and Environment in Palestine

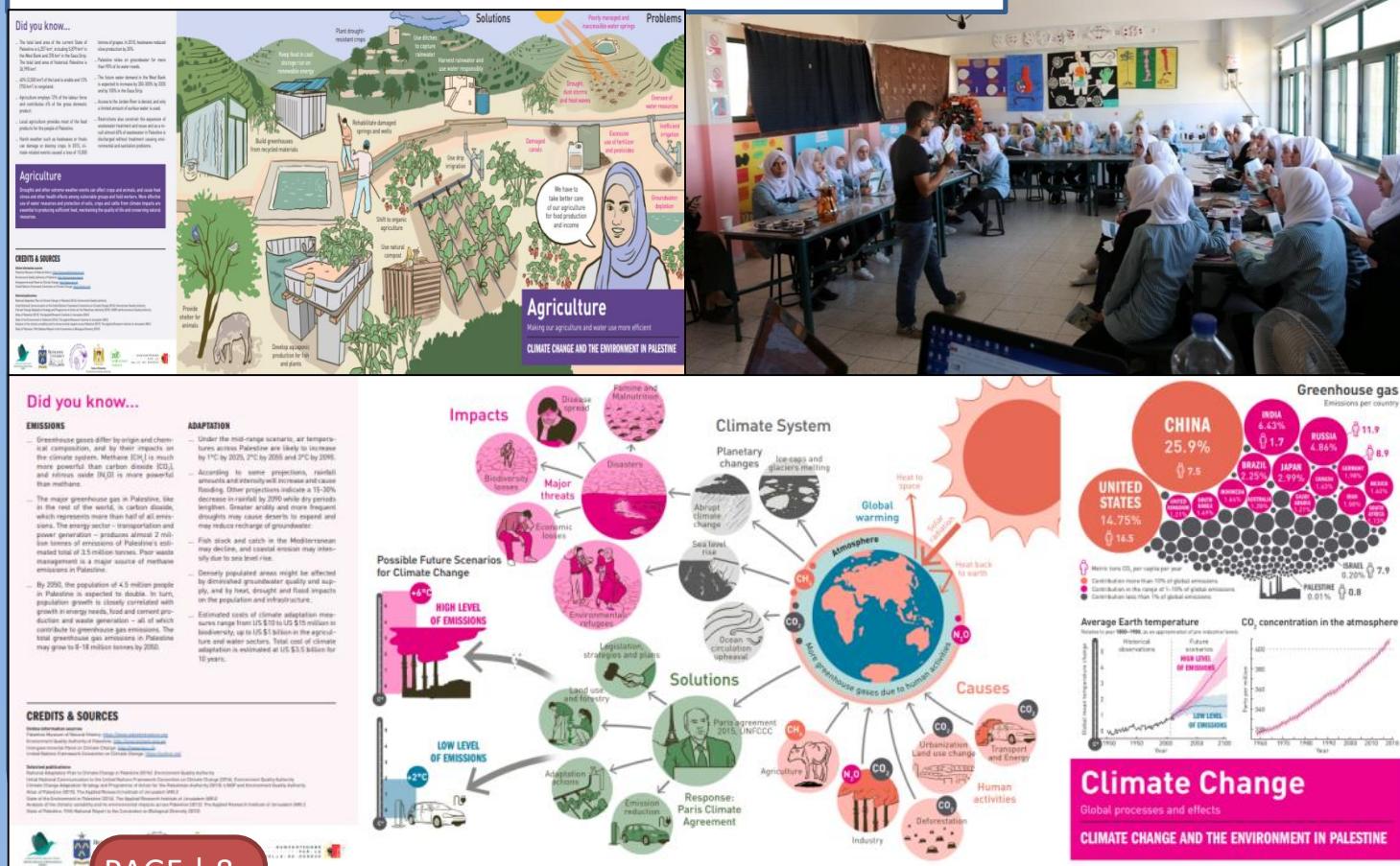
Project Achievements:

- Engaged in research to identify priority areas and activities that are globally and locally relevant (sensitive to local needs).
- The research was translated into six awareness modules: Climate change, Geography, Energy and Transportation, Biodiversity, Agriculture, Wastes and Chemicals. These were printed (Arabic and English) (see below) as banners and brochures but also used in workshop presentations and discussion
- Conducted 14 workshops in 14 school for more than 400 students in Bethlehem and Hebron to raise awareness by using the printed materials in the training.
- Museum exhibits and tours were adjusted to include climate change. We then guided 12 tours for 12 school students in the museum to raise awareness about climate change and environment in Palestine through the exhibits and the educational modules.
- Distributing more than 20,000 brochures on climate change and the environment in Palestine, in addition to distributing more than 300 posters to 50 schools for use in teaching students about climate change and the environment in Palestine.
- Two members of PNMH team travelled to Geneva to attend and participate in project meetings on climate change and biodiversity.

Duration: Mar 2018 – Mar 2019

Funded by:
City of Geneva

Objective:
PIBS-BU cooperated with Zoï Environment Network on a project to raise awareness of youth on the potential impacts of climate change in Palestine and engage in mitigation and adaptation measures.



Biodiversity Conservation and Community Development in Al-Makhrou Valley in Bethlehem, Palestine

Project Achievements:

- Engaged in research to study the fauna and flora that produced significant data including on endangered species: Hundreds of species of plants, invertebrates, key mammals including large mammals (jackals, hyenas, hyrax, gazelles, wild cats, etc.) and over 12 species of endangered bats, dozens of species of resident birds, reptiles, and amphibians.
- Created a biodiversity management plan.
- Worked with Ministry of Tourism and local communities to create a marketing plan for the villages (eco-friendly business plan that includes ecotourism and agricultural tourism.)
- Worked with 80 local farmers and aspiring farmers to help them with supplies, plants, material and knowledge to do eco-friendly agriculture.
- Reached out to school students in the four surrounding communities and benefited 150 students (50 % female) including an awareness field trip to the Al-Makhrou Valley.
- Soon we will release a documentary video concluded our work in Al-Makhrou Valley (National Geographic Society).

Duration: Sept 2018–
August 2021

Funded by: Darwin
Initiative

Objective:
To conserve biodiversity in
Al-Makhrou Valley
benefitting the local
communities through
sustainable use of
ecosystem services.



We work with farmers from A to Z including the creation of a marketing hub to market their products. There were 13 booths promoting a variety of fresh vegetables, pickles, dried fruits, dairy products, honey, olive oil, and many others.



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Biodiversity

Conservation and Community Development
In Al-Makhrou Valley In Bethlehem, Palestine



[Explore Al Makhrou with its variety of Fauna and Flora!](#)



[Created a database of fauna and flora in Al-Makhrou Valley](#)

[News & Activities](#) [Recent Fauna Items](#) [Recent Flora Items](#)



Palestine Action for the Planet (PAP)

This year, we agreed to develop a network -- Palestine Action for the Planet -- with the mission to “Think Globally, Act Locally” and “Work Locally, Achieve Globally” in areas of environmental conservation. This is not a new organization or NGO but is intended to be an informal group of like-minded people in our country (& networking with groups like Extinction Rebellion) concerned for the future of our planet.

The first ten issues that PAP will take up:

- Challenge Zionist colonialist and imperialist actions locally and globally while promoting indigenous people with sustainable communities on the ground (indigenous/native people can protect their areas.)
- Maximize the usage of traditions and cultural heritage (it's more ecofriendly and more effective.)
- Use and develop alternative energy to fossil fuels (e.g. walking, cycling, biogas, solar energy.)
- Reduce and eliminate all plastic usage.
- Reduce solid wastes and increase/intensify programs for recycling, reusing, and upcycling (including composting organic waste.)
- Increase forestation (with native trees) and decrease burnings and cutting of trees.
- Decrease and move towards eliminating all packaging (e.g. use baskets for shopping, use recycled bags made from used clothes, etc.)
- Proper and conservative use of water and move towards eliminating liquid waste.
- Deal with human over-population (including family counselling.)
- Reduce/eliminate meat consumption (vegetarian diets are healthier.)



RESPECT
الاحترام

REUSE
إعادة استخدام

REDUCE
تقليل

RECYCLE
إعادة تدوير

LINKS:

فلسطين من أجل الكوكب www.palestinennature.org/palestine-action-for-the-planet/

معهد فلسطين للتنوع الحيوى والاستدامة www.palestinennature.org

EXTINCTION REBELLION [تمارد انقراض](http://www.rebellion.earth) www.rebellion.earth

Medical Entomology

This is a project funded by the Ministry of Education and Higher Education that aimed to create a medical zoology unit to do research on areas directly relevant to health of human beings in Palestine including animals that act as vectors of human or livestock disease. In 2019 we initiated a number of research projects including on 1) mosquitos, 2) sandflies, and 3) poisonous animals (scorpions and snakes). A database was created and educational efforts are taking place.



British and Palestinian museum collaboration in research, education, and conservation

Funded by The Royal Society (Dec 2019-Nov 2022) this project aims to build human capacity and develop British (Natural History Museum NHM, London) and Palestinian (Palestine Museum of Natural History PMNH, Bethlehem University) collaboration in two areas important for environmental conservation and sustainable community development:

- 1) Research: Both institutions engage in significant research on nature locally and collaboratively abroad.
- 2) Education: Capacity building and developing public education and citizen science via museum-community and museum-museum partnership. This will produce significant new data, publications and collaborations that serve Palestinian and British interests in the environment.



Research and Publications in 2019

 Zootaxa 4664 (1): 001–046
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Article

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<http://zoobank.org/urn:lsid:zoobank.org:pub:839DFCCC-A83F-408E-99E3-7A51EFDF18D3>

Systematic list, geographic distribution and ecological significance of lady beetles (Coleoptera: Coccinellidae) from the West Bank (Central Palestine)

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Abstract

We surveyed and identified species of lady beetles from the West Bank to document their geographic distribution and understand their ecological significance. This study documents the presence of 35 species of Coccinellidae in 19 genera belonging to 10 tribes and 6 subfamilies. Seven species (mostly very rare), out of the 35 documented, are recorded for the first time in the area studied. These are *Nephus (Bipunctatus) bipunctatus*, *N. crucifer*, *Scymnus (Scymnus) interruptus*, *S. (Parapullus) abietis*, *S. (Neopullus) limbatus*, *S. nigropictus*, and *S. (Pullus) suturalis*. *Nephus peyerimhoffi*, introduced to Palestine in 1986 and later considered extirpated, is recorded from three localities in this study. The distribution of many species generally correlates with local biogeographical zones. All species recorded during the study feed on agricultural pests such as aphids and scale insects. Previously published accounts have been very limited, and while more remains to be done, this study is currently the most comprehensive in the West Bank.

JJBS

Jordan Journal of Biological Sciences

Volume 12, Number 5, December 2019
ISSN 1995-6673
Pages 657 - 658

Short Communication

First Record of the Western Conifer Seed Bug, *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera, Coreidae), from Palestine

Elias N. Handal* and Mazin B. Qumsiyeh

Palestine Museum of Natural History, Bethlehem University, Bethlehem, Palestine

Received February 14, 2019; Revised March 5, 2019; Accepted March 12, 2019

Abstract

This is the first report of the invasive Western conifer seed bug *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera, Coreidae) from the Palestine geography representing its southern-most record in Asia. The record is from Wadi Al Makhrour, a valley considered as a key biodiversity area (KBA) and a UNESCO World Heritage site. *L. occidentalis* is a significant pest of pine trees and an invasive species to the Mediterranean region originally from western North America. More studies are needed on its ecology, status, genetics, distribution, and potential damage in Palestine.

Macrofaunal Fossil Assemblage from Beit Ummar, Hebron, Palestine

Taleb Al-Harithi*, Mazin B. Qumsiyeh, and Elias N. Handal

Palestine Museum of Natural History, Bethlehem University, Bethlehem, Palestine

* Correspondence to Dr. Al-Harithi via email: geologytaleb@gmail.com

ABSTRACT

Eighteen molluscan and echinoderm elements comprising eleven Bivalvia, three Gastropoda, two Cephalopoda and two Echinoidea are described from a marl bed outcropping in the northern part of Beit Ummar, Hebron District, Palestine. This fossil community belongs to the Middle Cenomanian time and is similar to nearby macrofaunal assemblages in the Eastern Mediterranean region. The species extracted indicate a shallow marine warm environmental condition that prevailed in the sea at that time frame in what is now the Hebron Hills.

Articles



Wadi Zarqa al-Ulwi Protected Area

Actions for Environmental Sustainability

By: Mazin Qumsieh

A + -



The Palestinian Museum of Natural History (PMNH) at Bethlehem University is one of the Global Environment Facility's Small Grants Programme* (GEF/SGP) grantees that focuses on protecting biodiversity and preserving native species in Palestine. In 2017, the institute was entrusted by GEF/SGP to conduct faunal and floral biodiversity studies in Wadi Zarqa al-Ulwi (WZU) to determine the most threatened and endangered species according to the IUCN Red Data Book; identify threats to the existing ecosystems in the wadi; and carry out an environmental-awareness and education program in the area that would lead to sustainability.

- Aikins, T.Kh. et al. [incl. us]. Monitoring natural resources in protected areas: developing biodiversity indicators in and around protected areas in East- and West Africa and the Middle East. CEBioS Policy Brief Number14 is produced in the framework of a series of Measuring, Reporting and Verification projects financed by the CEBioS programme of the Royal Belgian Institute of Natural Sciences and funded by the Belgian Development Cooperation.
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- Saeed Reena and Mazin B. Qumsiyeh (2019) Are 19th century studies relevant to understanding changes in raptor bird fauna in the Fertile Crescent? An example from Tristram's work. *Sandgrouse (Journal of the Ornithological Society of the Middle East)*. In press
- Thaler, Maximus Aysha Al-Wahsh, Alea Meuser & Mazin Qumsiyeh (2019) Macrofungi from The Hebron and Jerusalem Hills of Palestine. *Mycotaxon*. In Press

New Infrastructure

Palestine Ethnography Exhibit

Created and opened the Palestine Ethnography exhibit. Already visited by over 3000 visitors since April 2019.



Acquired 123 tangible agricultural objects and more than 130 books on cultural heritage.

An ethnography and herbal garden was created and planted with some medicinal plants.



Garden and Playground

The Botanical Garden aims to study the plant diversity in Palestine and to save samples of wild plants to form an educational oasis for visitors and researchers. So far, over 270 plant species were recorded in the garden.



A playground area with handicap ramp and upcycled art were partially funded by Playgrounds for Palestine (USA).

An outdoor amphitheater in the garden for workshops and external training.



Animal Rehabilitation Unit



Palestine had no animal rehabilitation center. Such centers are critical to protect humans and wildlife. We initiated the first few steps towards such a center and we rehabilitated and released several birds (including an Eagle Owl released in Wadi Zarqa), reptiles, and mammals (including a fox rescued from a sewage pool).



During rehabilitation, these animals are excellent educational tools for students and other visitors to the facilities.

A golden eagle (released in late December 2019) and a striped hyena named Linda due to be released in February 2020.



Education

Museum team members Elias Handal and Prof. Qumsiyeh teach both formal courses and informal lessons to students of various ages and backgrounds plus adult education. For example in spring 2019 Prof. Qumsiyeh taught Biodiversity to Master's students in Environmental studies at Birzeit University and in fall 2019 a course on fauna and flora at Bethlehem Bible College in the tour-guiding diploma program. Elias Handal taught similar course at Dar AlKalima College in 2019. But far more hours are spent in educating those who come to the museum. In 2019 several thousand came (more than half are school children) who were given tours of the gardens and the exhibits and were engaged interactively to increase their environmental stewardship.





The Arab Science Café is an open forum (supported by the New Arab Foundation) for people to discuss diverse topics that fall under the rubric of promoting science and technology, with emphasis on scientific, environmental and conservation research with the aim of getting youth and community fully engaged around these topic and changing behaviors related to human, science and nature interactions to arrive at a sustainable future in Palestine. In 2019, eleven “cafes” were held on subjects ranging from project management to bat echolocation to permaculture to nature photography.



Workshop Title	Date	Trainer
Museum Management	04 Jan 2019	Dr. Mazin Qumsiyeh
Our Publications	11 Jan 2019	Reena Saeed
Videography	18 Jan 2019	Max Thaler
Communication Skills	25 Jan 2019	Wissam Abbasi
Research Methods	01 Feb 2019	Dr. Mazin Qumsiyeh
Research Collecting data and Writing	08 Feb 2019	Dr. Mazin Qumsiyeh
Team Building	15 Feb 2019	Wissam Abbasi
Introduction to GIS	22 Feb 2019	Issa Mourra
Leadership	27 Feb 2019	Lindsay Levin
Maximize your business potential with Facebook	01 Mar 2019	Khader Handal
Resilience Skills Workshop	15 Mar 2019	Wissam Abbasi
Physics and Space	05 Apr 2019	Martin Sarret
Water Recycle	12 Apr 2019	Naim Iraqi

RESEARCH
Research Methods Workshop
Friday: 1.Feb.2019
From 3pm to 5pm
At PMNH
By Dr. Mazin Qumsiyeh

WHAT WHERE WHO WHEN WHY HOW QUESTIONS ANSWERS

BETHLEHEM UNIVERSITY
UNIVERSITY OF PALESTINE
NEW ARAB FOUNDATION
جامعة بيت لحم
جامعة القدس
مؤسسة عرب للمستقبل

LEADERSHIP
Leadership Workshop
Wednesday 27-Feb-2019
From 10am to 4pm
At the Palestine Museum of Natural History
Trainer: Lindsay Levin

BETHLEHEM UNIVERSITY
UNIVERSITY OF PALESTINE
NEW ARAB FOUNDATION
جامعة بيت لحم
جامعة القدس
مؤسسة عرب للمستقبل

Water Recycle
Workshop
Friday 12.April.2019
From 3:00 pm to 5:00 pm
At the Palestine Museum of Natural History
By Prof. Naim Iraqi

BETHLEHEM UNIVERSITY
UNIVERSITY OF PALESTINE
NEW ARAB FOUNDATION
جامعة بيت لحم
جامعة القدس
مؤسسة عرب للمستقبل

Article on PIBS/PMNH's work in the Bethlehem University Magazine featuring the research done in Al Makhrou Valley



New Discoveries in World Heritage Site

Palestine contains diverse habitats for such a small country and is biologically more diverse than some countries ten times its size. For the first time, the Palestine Institute for Biodiversity and Sustainability (PIBS) at Bethlehem University is carrying out projects that protect both people and nature.

Several plant species are declining rapidly due to political and other human pressures. PIBS has been at the forefront of studying these effects.

PIBS is focusing its effort and attention on Wadi al-Makhrou, a valley located about 7km south of the Old City of Jerusalem and about 6km northwest of the Old City of Bethlehem. The valley is integral to the Western Aquifer Basin, the most important water source in Palestine.

According to Darwin Project Manager, Rami Abu Saad, "the valley was designated by UNESCO as a World Heritage Site because of the ongoing Canaanitic agricultural practices and beautiful landscapes."

The PIBS is researching ways to preserve the diversity of fauna, flora, agriculture, and culture in the valley.

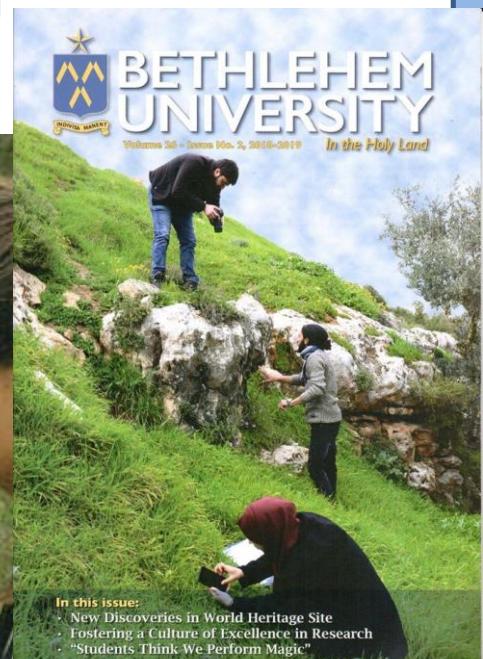


Wadi al-Makhrou is the last remaining biodiversity-rich area south of Jerusalem and close to the city of Bethlehem.

PIBS Director
Professor Mazin Qumsiyeh

Excavations in the valley show that humans have used the valley since the Middle Bronze Age (1500-1200 BCE), through the Hellenistic period, and even early Islamic Periods. Modern Palestinians have inherited this rich cultural history and still utilize the valley today.

The PIBS team aims to protect al-Makhrou valley from urban encroachment and biodiversity loss



through using research to create and implement a long-term conservation framework and management plan.

This multifaceted project is funded by three grants from the Darwin Initiative, National Geographic Society, and the British Council. It is also the first project in Palestine to receive an Explorer grant from National Geographic.

Amazing results are already being discovered, such as the first echolocation data for bats and the first study of mushrooms in the region since 1940. The scientific team is also discovering new records of insects and snails. Other team members focus on enhancing organic agriculture and permaculture in the valley and promoting agritourism and ecotourism.

The PIBS team has gathered significant cultural heritage data related to nature and agriculture in this world heritage site. Put together, this work will be an exemplary integrated system that promotes interests of nature and people in the Holy Land.





We participated in Science Days Festival in Bethlehem, an event organized in partnership with Um Salamuna Elementary Mixed School, Al-Qattan Foundation, and Um Salamuna Village Council.



Media and Public Relations

PIBS/PMNH have been featured on many national and international media agencies, TV shows, and newspapers including on [Middle East Eye](#), [Al Monitor](#), [Al Jazeera](#), [New Vision Media Center](#) and many more.



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Biodiversity and hope flourish at Palestine's first natural history museum

The museum's vision is of a sustainable community where humans and nature work and live together harmoniously

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طباعة

الطباطبى

“That's what we're looking for a place of positive energy that's infectious in the community”

- Dr Mazin Qumsiyeh

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PALESTINE PULSE

Natural history, conservation and politics meet in West Bank museum

Amjad Yaghi May 7, 2019



To cap our wonderful year, we visited LifeGate Center in Beit Jala, a rehabilitation center for better life for children with special needs. PIBS/PMNH team members and volunteers brought gifts plus some specimens and curiosities for the children. The smiles tell it all.



Other Accomplishments

We became a member of the Botanic Gardens Conservation International and a member of the European Network of Science Centres & Museums, and attended the international training course on botanical garden development and management with IABG.

Our activism is critical for biodiversity conservation. For example, see this letter from UNESCO after we sent them some documentation.



The Assistant Director-General for Culture

United Nations Educational, Scientific and Cultural Organization
Organisation des Nations Unies pour l'éducation, la science et la culture
Organización de las Naciones Unidas para la educación, la ciencia y la cultura
Организация Объединенных Наций по вопросам образования, науки и культуры
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联合国教育、科学及文化组织

Prof. Mazin Qumsiyeh
Director and Professor
Palestine Institute for Biodiversity and Sustainability, Bethlehem University
P.O. Box 9-Mar Andrea Campus
Bethlehem
Palestine

14 November 2019

Ref.: CLT/WHC/ARB/19/9892

Dear Professor Qumsiyeh,

On behalf of the Director-General, I wish to thank you for your letter of 17 September last by which you inform UNESCO of environmental and other threats that are affecting Al-Makhrou Valley within the World Heritage property of *Palestine: Land of Olives and Vines – Cultural Landscape of Southern Jerusalem, Battir*, inscribed on the List of World Heritage in Danger since 2014.

We have taken due note of this information, which will be taken into account for the review of the state of conservation report of the property that will be prepared for the 44th session of the World Heritage Committee in 2020. Your concerns will also be brought to the attention of the State of Israel.

I wish to assure you that UNESCO stands ready to take all necessary measures that are in accordance with the Operational Guidelines of the World Heritage Convention and within our mandate in this regard. In the meantime, we invite you to continue to transmit to us any further relevant information that may arise.

Thanking you for your commitment to the protection of cultural heritage, I remain,

Yours sincerely,

Ernesto Ottone R.

cc: Palestinian National Commission for Education, Culture and Science
UNESCO Office, Ramallah

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In Pursuit of Peace and Justice: 100 Peace & Justice Leaders and Models (List #1)

Prof. Qumsiyeh is an advisory board and editor/reviewer for Jordan Journal of Biological Sciences (2019-2022) and is listed in 100 Peace & Justice Leaders and Models. We were honored to participate in different environmental and educational events, locally and globally.



Volunteers at PMNH

**345 Volunteers
Since 2016**

**From
35 Countries**

**92 Volunteers
in 2019**



Our sincere gratitude to our volunteers.

To volunteer with us, visit: www.palestinenature.org/volunteer/

Testimonies

Thank you so much for your continued stream of hope-filled encouragements. There is surely so much goodness to be seen & experienced! My U.S. American culture seems to be the most deadened to this goodness. Still, there is a groundswell of hope emerging, as folks realize that ALL we have & use has been taken from others with our societies economic, military, & political weaponry. This dulls the message of hope for many...sigh! Your message & supporting documentation has once again inspired me! To me, our walk of absolutely nonviolent, boundless compassion, & endless mercy are changing the very meaning of what it means to be human (simple Semiotics). To me, this has always been the so-labeled "Good News" of our Creator God & of the prophets. I do not know if you are a prophet but you seem to walk & live like a prophet! This is most inspiring, my new friend! So, walk in peace & simply know that there are many of us loving you & your precious ones, as well as remembering you throughout the moments of the days. Again, thank you for your chosen & admirable walk of hope-filled faith. That we mere (ha) mortals are blessed to walk in this grand parade of hope brings me great Joy (in both life & death) & immeasurable Delight (within the sense of absolute luminosity & in the absence of said luminosity). Our lives transcend, and we change & grow. I am immensely honored to be walking these steps with you & all of your precious ones.

N.

Thank you Mazin for sending that very comprehensive account of what the Museum is involved in doing. It is impressive and I like to think that this is the real Palestine with resilient and energetic people all involved in making the very best of a very bad situation. It is admirable. I am going to send this round to people and tell others about how the Palestinians help themselves in practical ways with such imagination. A very merry Christmas to you.

C.

I read all your e-mails with all your updates. I want to congratulate you on all your amazing efforts and work toward our beloved cause, people and our Palestine. I can't be more proud for all your amazing commitment and creative and intelligent ways of dealing with our people's situation in our beloved Palestine. You and the other volunteers at the museum do amazing work. God bless all your efforts. Greetings all the way from Houston, Texas to Bethlehem, Palestine.

R.

Looking back, the time I spent here will never be forgotten. The hosts were the most accommodating people I have ever come across in nearly every aspect, not to mention intelligent, socially-conscious, and extremely generous. They let me live in their house, share all of their meals with them, come along to cultural events outside of the volunteering work in the day, and, most importantly, made me feel as if I were a part of a family. Through this experience, I was able to learn an incredible amount about the occupation and the Palestinian psyche, but more importantly how I am a part of it and how I can do my part to help. Furthermore, the volunteering work also taught me a lot about the rudimentaries of farming/permaculture, the effects of climate change on people, fauna, and flora, and the importance of biodiversity and sustainability (in places of conflict). Outside of the more plant-related volunteering work, I was trusted and enabled to take initiative on my own projects, which ended up being mostly visual-media based (photography, videos, archiving). Volunteering here will present to you a side of Palestine/the West Bank that the average tourist will never come close to. Plus, the team of volunteers and visitors (from Palestine and abroad) passing through always keep things spontaneous and special. I highly recommend this experience to anyone interested in permaculture and Palestinian society/culture/people, and I thank the hosts for making the experience so memorable, informative, and meaningful.

We spent a month at the Museum as a family and it was an unforgettable experience which, I dare say, contributed to shaping my children's outlook and opinions on many important things including environment, nature, museum and conservation work, individual responsibility and personal development. The hospitality of the hosts has more than lived up to the legendary name of the Palestinian hospitality.

Dear Mazin and Jessie, staying with you made us realise what the Palestine spirit is all about - undefeatable optimism, courage, defiance and the ability to enjoy life. We saw and learned so much in these four weeks, we felt we made a difference, we laughed a lot, we met lovely people, travelled around and ate good food! We would also like to thank from all our heart both the members of the Museum staff and the other volunteers we met during our stay, you were all exceptional!

Mazin, your list of achievements is impressive. The museum staff are clearly making a contribution to the Palestinian community. Hope you and your family have a relaxing Christmas and a healthy and productive new year.

In solidarity,
R.

Merry Christmas and Happy New Year. These achievements testify to the commitment, resourcefulness and admirable tenacity of the team and its leader.

N. K.

Mazin, we find inspiration in your words. Your work is a model of creative coping in spite of the oppression. Keep writing, keep working. We keep the issue of Palestinian human rights in front of the American public.

Thank you Mazin and team, it is amazingly inspirational all that you do and achieve, quite mind blowing. Wishing you all the happiest of Christmases and an unimaginable 2020

R.

As an ordinary US citizen, watching in dismay as my country has failed again to extricate itself from decades of oligarchy, I take inspiration from your words of sanity and goodwill. The fact of your being changes my world profoundly for the better. I thank you and your team once more for your clear stand for peace and justice, and for working and living in harmony with that commitment. I know it is not the easy way, and not to be taken for granted. Instead, love is challenged every moment, and must be created out of nothing.

In gratitude and solidarity,
P.

My dear friends, (so far and still so near) Thanks a million for all your good wishes and good news of several actions which will last forever. I wish you all the same and pray to God....May you flourish and flower into a great tree of love, kindness and deep friendship.

D.

Donors and Funders

PIBS/PMNH are grateful to the donors and funders whose generous support made it possible for us to conclude another successful and productive year of research, education, and conservation of Palestinian biodiversity and environment as well as human sustainability in a troubled land.



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Palestine Museum of Natural History



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