





# Palestine Institute For Biodiversity and Sustainability

Palestine Museum of Natural History and Ecological Garden

# **Annual Report 2018**



## **Preface**

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 end to the political situation. Further working 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 initiated at Bethlehem University and opened its doors to the public in April 2017. This report highlights the amazing accomplishments in the calendar year 2018. These accomplishments in education (to thousands), conservation (protection of natural areas), research (30 publications), and community service would not have been pssible without the you to whom this report is presented: *funders* (*individual and institutions*), *staff members*, *volunteers*, *exective board*, *and partners* (*in governmental and nongovernmental entities*). This report is dedicated to the over 3000 young people (school and university students and other youth) who worked with us in 2018 and taught us so much about hope and the future.

#### The team





## **Mission and Goals**

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 via collections and scientific research that includes morphology and genetics.
- 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.
- 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
- Use research results in areas such as biodiversity, history, culture, permaculture and biological control to promote sustainable communities, focusing on marginalized communities

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 <a href="https://youtu.be/BPhFLOsEIM0">https://youtu.be/BPhFLOsEIM0</a> and on the website <a href="http://palestinenature.org">https://youtu.be/BPhFLOsEIM0</a> and on the website <a href="http://palestinenature.org">https://youtu.be/BPhFLOsEIM0</a> and on the website

## **Projects in 2018**

#### **Al-Makhrour Valley and nearby communities:** Nature and people sustainability

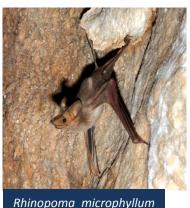
Funded by the National Geographic (first grant to Palestinians) and the Darwin Initiative the project aims at biodiversity conservational and community development at Al-Makhrour Valley, a UNESCO world heritage site and the last remaining biodiversity-rich area in the Bethlehem district. The project benefits the local communities through sustainable use of ecosystem services, including (a) promoting agriculture/green practices, (b) developing ecotourism, and (c) reducing human impact.

An example of the initial amazing results is the collection of unique data on mammals in this World Heritage Site. For example, using an echolocation devise, we surveyed the bat fauna of the valley and already recorded ten known and two unknown species (representing one fruit bat



and 11 insectivorous bats). Of the ten identified species so far, some are rather rare (e.g. *Taphozous perfratus*) or recorded for the first time (Pipistrellus pipistrellus) the occupied Palestinian territories. We also used camera traps and recorded larger mammals including gazelles, hyenas, foxes, jackals, hyrax, and wild cats. The data being collected by our team of researchers in this

very special valley will be analyzed and used in education campaigns for the local Palestinian communities bordering the valley as we also stimulate local economy through plans for ecotourism and maintenance of traditional agricultural practices.



#### Actions to mitigate and adapt to changing climate

The project raised the awareness of youth on the potential impacts of climate change in Palestine and what individuals and society can do to respond. Raising awareness through was done both via educational material (posters and pamphlets and presentations) created professionally to reflect local needs and then engaging in interactive workshops for over 20 local schools. The subjects covered included biodiversity, agriculture, waste, energy and consumption among others. More than 700 school students (50% female: 50% male) benefited directly (and hundreds more via creation of environmental clubs at schools that spread knowledge to other students). We are planning to take this project to a larger scale and target more school students in different governorates in West Bank then Gaza and then Jordan. The awareness materials are available in Arabic and English (available here <a href="https://www.palestinenature.org/education/">https://www.palestinenature.org/education/</a>

# Building the capacity to protect Palestinian land and heritage through museology and eco-tourism

Funded by British Council / cultural protection fund and implemented by PMNH/PIBS in partnership with Masar Ibrahim Alkhalil, this project creates innovative ways for the protection and preservation of specific forms of the Palestinian cultural heritage: those related to the natural



history and agriculture. Specific forms include:
a) tangible assets like tools, implements, traditional bee hives, farming equipment, native seeds, farmer's cloths, old books and ledgers, heirloom seeds of plant varieties, artistic objects made from plants and animal products among others; and b) intangible assets like knowledge and practices connected to the land, stories, anecdotes, proverbs, and life practices relating to land, nature and agriculture. Both tangible and intangible

cultural heritage of this type is under threat. A professional team including the project coordinator, the project assistant, and six researchers are diligently compiling needed material and also creating a database (<a href="https://turathna.palestinenature.org/">https://turathna.palestinenature.org/</a>). The collected material and data will form the basis of a new ethno-nature section of our museum, the first and only one of its kind in Palestine.

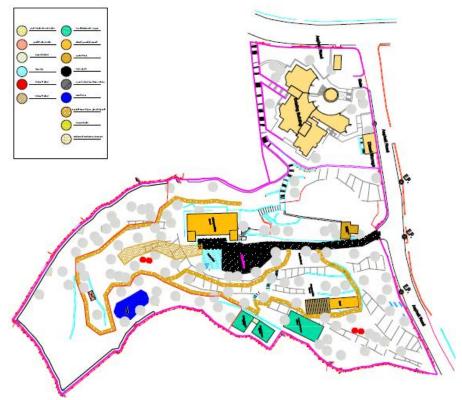


#### Educational community garden and playground

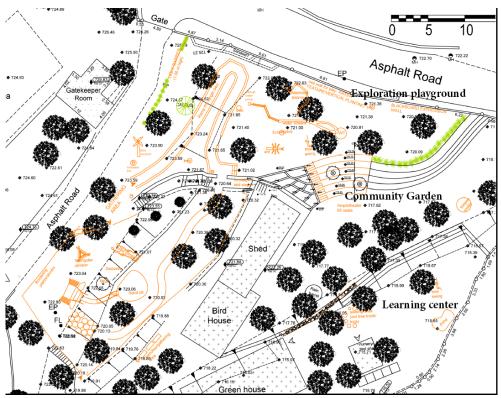
The overall objective of this project was to develop a garden and permaculture education center as a model for playful exploration and education on sustainability. The educational and empowerment activities will focus on children and vulnerable local families (from refugee camps and marginalized villages). Helping them develop their own plot of land and also take knowledge to "green" their own backyards, roofs, walls, and communities to create a sustainable local economy. A minimum 300 community members (half children, 50% female) especially from marginalized neighborhoods including two refugee camps will benefit from this ongoing project. Work already commenced on infrastructure (see below) and children were recruited.

## **Infrastructure**

**GARDEN:** PMNH developed 12 dunums (roughly 3 acress) at Mar Andreas campus of Bethlehem University to be an oasis for local wildlife and local people. It is now a rich area in fauna and flora in the middle of populated neighborhhod. The land was fenced for the last 4 decades, which helped protect it. But we made significant improvement in 2018 as seen below.



Map of site before the project highlighted here. The site chosen is in the bottom right hand corner.



Final proposed plan for the project with three areas of development: a learning center (compost, recycling etc), a community garden, and an exploration playground area.



Area before and during infrastructure development. Bottom figure is concrete basis of educational Amphitheater.

Initial funding for this work came from the Rotary Foundation but the idea turned out more elaborate as described above and below in detail and thus we sought and received complementary funding from the Western Lieutenancy of the Equestrian Order (USA), from Playground for Palestine, and from the Jerusalem Fund which collectively cover the expenses for a) infrastructure for garden including an amphitheater, terracing, soil, wood etc), b) Playground and exploration area material, c) Supplies for gardening (tools, seeds etc), d) Program development and activities (trainer, transportation etc).



#### **NEW GREEN BUILDING PLANS**

All of the great achievements recorded in the PMNH/PIBS have been completed with great determination and effort but limited indoor facilities (less than 300 square meters). Thus we developed plants for new buildings (Golzari Architects from London, see figures) and The Munib R. Masri Family Foundation pledged USD \$400,000 towards this structure (we still need nearly one million more). The unique setting and dominant landscape of the Palestine Museum of Natural History and the available land has influenced and framed the architectural approach and concept of the new proposed scheme. Two existing stone buildings (the Sisters Building to the north and the Admin Block, southwest) will be remodeled and used. The hill site topography encompasses areas with rare and endangered plant species like the Star of Bethlehem and four species of orchids. The values and spirit of PMNH/PIBS are reflected in a sensible proposal that blends architecture into the landscape using locally sourced materials and green design. The proposal consists of a series of Exhibition Rooms emerging from the landscape and forming an informal courtyard against the proposed 'Nucleus block', which will surround a "floating" Cocoon.

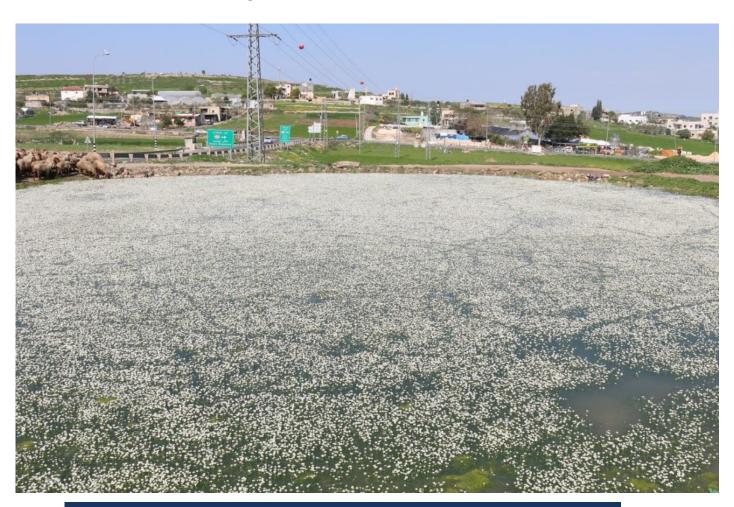




## **Conservation and sustainability**

We built new models of sustainability including in composting, aquaponics, biogas, rain harvesting, solar energy (covering all our needs and more), organic gardening, solar electricity,

and more. We transferred knowledge to farmers and agriculture engineers, for example the first project implemented even before we opened our facilities was in 2015 when 12 engineers came from Gaza came to learn aquaponics in our gardens. We worked with Environmental Quality Authority to create a management plan for Wadi Al-Quff, Wadi Al-Zarqa al-Ulwi protected areas and now working on Wadi Al-Makhrour (see above under projects). Our work in the area of Jinsafut (buffer zone to Wadi Qana protected area is a good example of successful conservation efforts). Despite our efforts to locate other similar ecosystems, the Syrian spadefoot toad (*Pelobates syriacus*), which is already extirpated in Jordan, was found nowhere else in the West Bank except in the Jinsafut pond. We studied the pond's changes through the seasons and managed to raise the tadpoles *ex-situ* and return them successfully. The measures we took on the ground also helped prtect this toad and the endangered ecosystem it lives in including the Pond Water-crowfoot (*Ranunculus peltatus*) and the duckweed (*Lemna minor*).



Peak size and peak floral period of the Jinsafut pond in February 2018. Photo towards the

## **EDUCATION AND WORKSHOPS**

Selected Human Capacity Workshops held at PMNH/PIBS with description and facilitator			
Photography	10 Aug, 2018	Focused on Nature Photography	Mazin Qumsiyeh
Climate Change workshops	23 Sep 3 Nov. 2018	With school students of 14 schools on climate change in Palestine	Niveen Hazboun, Laila Ayyad & Mohammed Najajrah
Website digital Infrastructure	26 Sep. 2018	Website management and security	Dany Qumsiyeh
Community garden workshop	23 Oct. 2018	Introductory presentation about community gardens, explaining some theories, Visioning exercises, SWOT analysis	Kristin Sunde
Database workshop	30 Nov. 2018	Data processing and database creation and management	János Sebestyén
Software and internet security	12 Sept. 2018	How to protect and back-up your data	Dany Qumsiyeh
Databases	30 Nov. 2018	Data processing and database creation and management	János Sebestyén
Time Management	Dec. 2018	How do we manage so much work and be more successful	Mazin Qumsiyeh
Cultural Heritage Database	Dec.2018	How does it work and input of data	Khader Handal

PIBS/PMNH continues to spread environmental awareness and empower eco-friendly attitudes and actions through education. This year, PIBS/PMNH hosted over 3000 school students and provided guided tours, workshops and field trips on areas like respecting nature, biodiversity, climate change, reducing waste, recycling, composting, critical thinking, cultural heritage, science, anthropology, ecotourism, and more. As a non-formal education institution involved in education role, we developed environmental education modules on climate change in Palestine (funded by ZOI Environment

Network) to empower long-term behavioral and educational effect on our youths. Moreover, we worked and mentored university students on variety of subjects as environmental studies, ecotourism and more at our own Bethlehem University (BU) and other colleges and universities in Palestine and abroad. Noteworthy, our work that has started last year on establishing a new interdisciplinary bachelor's degree under the auspices of the Faculty of Science and the Palestine Institute for Biodiversity and Sustainability at BU, is in progress. Many undergraduate and graduate university students did their theses at the PIBS facilities. In 2017, 11 students at bachelor level and three at master level did their research work with us. Two museum staff members finished their MSc Degrees in environmental studies (from Brizeit University under supervision of museum director Prof. Qumsiyeh). Elias N. Handal's thesis was titled "Systematic Study, Ecology and Geographic Distribution of Land Snails (Mollusca) From the Occupied Palestinian Territories (West Bank)." Mohammad H. Najajreh did a thesis on "Lady Beetles (Coccinellidae: Coleoptera) in the West Bank of Palestine: Survey of species, geographic distribution and ecological significance". This past year we started to develop the children's exploratory area and community gardens based on key concepts and research that demonstrate how children learn through play. Outdoor play experiences in natural settings are essential components for building physical and mental health especially for children experiencing trauma, violence, deprivation, and insecurity, as in Occupied Palestine.

## Public Relations and Public Education

Over 40 local delegations plus hundreds of individual adult visitors over 18 y.o. (total over 2500 adults). In addition about 450 school students came as part of buses in the first half of 2018 and 950 in the second half (a doubing during the year with total over 1450 school students). Over 50 teams of International visitors representing over 33 countries visited the museum in 2018 (over 1400 visitos). Thus total direct visitors who benefitted from seeing our facilities and working with us for 2018 was over 5500. Prof. Qumsiyeh traveled to the US giving talks and attending the popular National Geographic Explorer club in DC. He also traveled to Egypt, UAE, and Jordan. This allowed us to network with an additional >2000 people. Our email list cotinues to grow and now posits over 35,000 members (and over 20,000 more on other lists we post weekly messages to). Our website and Facebook are active ways to engage with the museum and a great resource for people to learn about what we are doing. Our Instagram (@palestinemnh) is increasingly becoming a fun way for people to engage with the day-to-day life here at PMNH, we posted short videos of our volunteers about what they do and their experiences, and videos introducing different herbs in garden and greenhouse of PMNH. The PIBS Director and team have been on national and international media inclding Palestine TV, CNN, RT News, Al Hurra TV MAAN News Agency, Wafa News Agency, Watan News, Donia Al-Watan Newspaper, Al Hadath Newspaper, Dissident Voice Newsletter. PMNH became a member of a number of groups including Ecsite – The European network of science centres and museums, Ornithological Society of the Middle East (http://www.osme.org/links), and Envionmental Peace Building

(http://www.environmentalpeacebuilding.org/community. We also did short videos on things like Medicinal Plants (https://youtu.be/xLNf2MQjMSY), for some of our work (e.g. mushroom study (https://youtu.be/xa98iI\_DUY0) and our Christmas party for orphaned children (https://youtu.be/ReqVGR3aeJc). Prof. Qumsiyeh was listed in 100 Peace & Justice Leaders and Models https://www.transcend.org/tms/2018/01/in-pursuit-of-peace-and-justice-100-peace-justice-leaders-and-models/



## Research

You can download papers here <a href="https://www.palestinenature.org/research/">https://www.palestinenature.org/research/</a> In 2018, at least 30 articles were published in various topics by our team:

- Abualia, K, R. Saeed, and M.B. Qumsiyeh. Environmental education and awareness for behavioral change in a developing country under the stresses of occupation. Pacific Ecologist. In press
- Al-Harithi, T., M. B. Qumsiyeh, and E. N. Handal. Macrofaunal Fossil Assemblage from Beit Ummar, Hebron, Palestine. Jordan Journal of Natural History, Submitted
- Al Sheikh, B. and M. Mahassneh. Flora of Wadi Al-Quff Protected Area, Hebron Governorate, Palestine. Jordan Journal of Natural History, Special issue 1, 3: 47-57
- Amr, Z.S., M.H. Najajreh, M. Zawahreh, E. Neubert, E.N. Handal, M.A. Abu Baker & M.B. Qumsiyeh. 2018. Diversity and Ecology of the land snails of the Occupied Palestinian

- Territories. Zoology and Ecology, 28(1):25-35. https://doi.org/10.1080/21658005.2017.1419107
- Amr, Z.S., M.A. Abu Baker, M.B Qumsiyeh & E. Eid. Systematics, distribution and ecological analysis of rodents in Jordan. Zootaxa, 4397 (1): 1-94.
- Goupil, Tony and Mazin B. Qumsiyeh Felix-Marie Abel and his vision of nature in Palestine: Géographie de la Palestine revisited" Arab World Geographer. 21(2-3): 128-140.
- Handal, E.H. and Z. S. Amr. 2017. Additional localities for the Flower chafers (Coleoptera: Scarabaeidae: Cetoniinae) from the Palestinian Territories (West Bank). Jordan Journal of Biological Sciences, Submitted.
- Handal, E.N. A.M. Al Wahsh, Z.S. Amr, R. Battiston & M.B. Qumsiyeh. 2018. Mantids (Dictyoptera: Mantodea) from the Palestinian Territories with an updated list. ARTICULATA 33: 1-15
- Handal, E.N. and Qumsiyeh, M.B. First Record of the Western Conifer Seed Bug Leptoglossus occidentalis Heidemann, 1910 (Heteroptera, Coreidae) from Palestine. Zoology in the Middle East, Submitted.
- Khalilieh, A. Avifaunal baseline assessment of Wadi Al-Quff Protected Area and its Vicinity, Hebron, Palestine. Jordan Journal of Natural History, Special issue 1, 3: 47-57.
- Khlaif, N. and Qumsiyeh, M.B., 2018. Genotoxicity of recycled electronic waste in Idhna, Hebron District, occupied Palestinian territory: a case-controlled study. The Lancet, 391, p.S22.
- Kilani A, K. Abualia, A.A.S. Khatib and MB Qumsiyeh. Cytogenetic abnormalities in acute leukemia patientsfrom occupied Palestine. Jordan Medical Journal. 52(3):127-145.
- Mahafzah, M.T., Al Hawari, H.H., Momani, M.S., Abbasi, H.N., Zaid, A., Abualia, K., Al-Khatib, A.A., Qumsiyeh, M.B., Alshahwan, S.S., Obeidat, H.M. and Alnajar, M.K., 2018. The Prevalence of Hearing Loss in Patients with Autoimmune Thyroid Disease: A Prospective Study. J Med J 52 (3):109-116
- PMNH Team. Environmental Effects of the Occupation and Palestine Museum of Natural History. Pp. 264-273 In "Kumi Now: An inclusive call for nonviolent action to achieve a Just Peace" Published by Sabeel, Jerusalem. 2018.
- PMNH Team. Environmental Stewardship via a Nascent Natural History Museum in Palestine <a href="https://www.osme.org/content/environmental-stewardship-nascent-natural-history-museum-palestine">https://www.osme.org/content/environmental-stewardship-nascent-natural-history-museum-palestine</a>
- Qumsiyeh, M.B. Fauna of Wadi Al-Quf: Invertebrates. Jordan Journal of Natural History, Special issue 1, 3: 80-87
- Qumsiyeh, M.B. Fauna of Wadi Al-Quf: Amphibians, Reptiles and Mammals. Jordan Journal of Natural History, Special issue 1, 3: 70-79

- Qumsiyeh, M.B. Palestine Institute of Biodiversity and Sustainability and Museum of Natural History in Protection of cultural, environmental, and agricultural heritage. Published by Ministry of Tourism 2018. in Arabic مؤسسة فلسطين للتنوع الحيوي والاستدامة ومتحف التاريخ الطبيعي للتنوع الحياية النراث الثقافي والبيئي والزراعي
- Qumsiyeh, MB Fi Altanawu3 Jamal wa Istidama MUqabel Alharb walHalak (in diversity is strength and sustainability as opposed to conflict and destruction). Islamochristiana 43:1-20.
- Qumsiyeh, MB. Ethnoecology of Palestine: Preserving Culture Heritage of Palestine's Natural History. Conference Proceeding. In press as a book. 4th Hyperheritage International Seminar (International Conference): Smart Heritage. <a href="http://europia.fr/HIS4/">http://europia.fr/HIS4/</a>
- Qumsiyeh, MB. Nature and Resistance in Palestine. Active Arab Voices. http://www.activearabvoices.org/uploads/8/0/8/4/80849840/qumsiyehpmnhresistance-rm.pdf
- Qumsiyeh, MB. Deir Yassin to Netanyahu: Are We Closer to Liberation? Isolationist societies cannot survive in a globalized world. Islamic Horizons Magazine, USA 1439 (July/August, 2018):48-49.
- Qumsiyeh, MB. A mentor and a friend. Encomia for Robert J Baker edited by Lisa & Robert Bradley, Texas Tech Press. In press
- Qumsiyeh, MB and Amr, ZS. Protected Areas in the Occupied Palestine Territories. Jordan Journal of Natural History, Special issue 1, 3: 25-46
- Qumsiyeh MB and ZS Amr. HSF Report by submitted to and edited by Hans Seidel Foundation). Environmental Conservation and Protected Areas in Palestine: Challenges and Opportunities. Available at
- http://www.mahmiyat.ps/uploads/171013%20HSF\_Bethlehem\_Printed%20Version\_NC.pdf
- Qumsiyeh, MB and A.I. Amro. Liberation from Mental Colonization: A Case Study of the Indigenous People of Palestine. In the Routledge Book of Postcolonial Social Work. Editors: Tanja Kleibl; Ronald Lutz; Ndangwa Noyoo; Benjamin Bunk.
- Qumsiyeh, M.B. and R. Saeed. Orientalist depictions of Jerusalem and Palestine versus anthropological and biological diversity. Ya Quds Academic Cultural Newsletter. 4: 12-16, July
- Qumsiyeh, MB and EN Handal. "Ecotourism: Opening a Natural Window to Palestine." This Week in Palestine. 244: 38-42.
- Qumsiyeh, M.B. and E.N. Handal. Revisiting adaptive nature of chromosome evolution in placental mammals. Comparative Cytogenetics, Submitted.
- Qumsiyeh, M.B, A. Khalilieh, I. M. Albaradeiya, and B. Al-Shaikh. Biodiversity Conservation Of Wadi Al-Quff Protected Area: Challenges And Opportunities. Jordan Journal of Natural History, Special issue 1, 3: 6-24



Figure 5. Adalia (Adalia) decempunctata (Linnaeus, 1758) with various morphs.

Scale bar = 5mm.

## Administrative/Financial Issues

- 1) The staff grew from four in 2017 to nine in 2018 (17 if we add the 6 researchers hired for four months and Dr & Mrs Qumsiyeh are still full time volunteers!). Most of the staff are on project funding now.
- 2) Seventy three long term volunteers (3 weeks or more) spent a total of 14,500 hours helping the museum. The international volunteers came 21 countries in 2018.
- 3) The advisory board was transitioned to an executive board (EB) to ensure sustainability in the last year and beyond of the five year trasition period (2014-2019). The tasks of the EB are: Building partnership with other local institution operating in similar fields; Brainstorming sessions on development of the Museum; Helping with drafting fundamental documents; Providing assistance in developing the network of the Museum; Promoting the Museum; Fundraising; Advising on programs / helping with

- organizational planning; Providing pro bono work to assist with other staff-driven needs
- 4) Funding for all the entities under PIBS-BU (PMNH, PBPG etc) are cash or donations in kind received through: philanthropic giving (individuals, corporate, other); grants (usually project oriented); site revenue (admissions, fees, and sale of products), and contracts (consultancy, short term service contracts). We are looking to increasing revenues to insure sustainability via support from the Palestinian government (mostly in kind) and Partnership agreements.

#### **GRANTS**

- Sept. 2018 August 2019. Building the Capacity to Protect Palestinian Land and Heritage through Museology and Eco-Tourism. British Council £87,500

  <a href="https://www.britishcouncil.org/arts/culture-development/cultural-protection-fund/building-capacity-protect-palestinian-land-and-heritage">https://www.britishcouncil.org/arts/culture-development/cultural-protection-fund/building-capacity-protect-palestinian-land-and-heritage</a>
- Sept. 2018 August 2021. Biodiversity Conservation and Community Development in Al-Makhrour Valley in Bethlehem, Palestine. Darwin Initiative Fund. £287,343
- June 2018 May 2020. Biodiversity Conservation in Al-Makhrour Valley, Bethlehem, Palestine.

  National Geographic Society. **\$29,500.** <a href="https://www.nationalgeographic.org/grants/where-we-work/3A7C6F51">https://www.nationalgeographic.org/grants/where-we-work/3A7C6F51</a>
- April 2018 May 2019. Community Garden. This project is granted and directed by the Rotary Club and will be applied on Mar Andrea campus. **\$45,000**. Plus we also have additional **\$12,000** from the Knights of the Equestrian Order and **\$5,000** from the Jerusalem Fund.
- Oct. 2018 Oct. 2019. Ecological Children's Garden for Play and Learning. Playgrounds for Palestine. **\$23,746**.
- Jan. 2018 Dec. 2019. Climate Change Education in Palestine. In collaboration with zoinet.org, Action de sensibilisation et d'éducation à l'environnement et le changement climatique pour les communautés en Palestine. City of Geneva. \$16,000.
- Feb. 2018 July 2018. Socio-economic sustainable development and environmental conservation at the northern transition zone to Wadi Qana Protected Area, Palestine. Royal Belgian Institute of Natural Sciences (RBINS). £3,480.
- Jan. 2017 Feb. 2018 Actions for Environmental Sustainability in Wadi Zarqa Protected Area. UNDP-GEF-SGP **\$35,000**

#### PARTNERS OF PIBS/PMNH

Al-Rowwad Center in Aida Refugee Camp; Birzeit University; British Council; Byspokes Sustainable community development; City of Geneva; Darwin Initiative (DEFRA); Environmental Quality Authority;

Green Life; Institute for Community Partnership-Bethlehem University; Jerusalem Fund; Ministry of Agriculture; Ministry of Education and Higher Education; Ministry of Tourism and Antiques; Munib R. Masri Family Foundation; National Geographic; Pioneer Consultancy Center for Sustainable Development; Playgrounds for Palestine; Rotary Club of Bethlehem; Royal Belgian Institute of Natural Sciences (RBINS); Western Lieutenancy of the Equestrian Order (USA); Zoï International & Many Public and Private Schools, village councils, and municipalities.



# Thank You

INDIVIDUAL DONORS ARE LISTED IN BETHLEHEM UNIVERSITY MAGAZINE (those who wished to be listed). Grants received and partners are noted above. We are grateful to every one of them who made our 2018 so productive

To volunteer <a href="https://www.palestinenature.org/support-us/volunteer/">https://www.palestinenature.org/support-us/volunteer/</a>

To donate https://www.palestinenature.org/support-us/donate/