

Palestine Museum of Natural History Palestine Institute for Biodiversity and Sustainability

Annual Report 2020

31 December 2020



Aerial view of PIBS/PMNH site at Bethlehem University Mar Andrea Campus



Neighbourhood children enjoying the new playground



 $Crocus\ hyemalis$ at our botanical garden

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1 Preface

2020 was a challenging year for all people. But with challenge comes opportunities and the team (staff, volunteers, donors) of the Palestine Institute for Biodiversity and Sustainability rose up to the challenge as you will see on these pages of our 2020 annual report. We expanded existing programs like our Animal Rehabilitation Unit, Cultural Heritage Program, and Environmental Monitoring Unit. We started new programs such as opening a children exploratory playground, molecular facilities (and integrating with our clinical and research cytogenetics laboratory), in-situ and ex-situ conservation programs, a new Biodiversity Center, new library facilities, and the group "Palestine Action for the Planet". We produced over 15 research papers in various areas including impact of COVID-19 on biodiversity in Palestine. We adapted to this virus by creating virtual educational programs, webinars and more. We built new partnerships including with the Ministry of Education, the Natural History Museum-London, Biodiversity Center at An-Najah National University, and others. We were also selected to work on the National Biodiversity Strategy and the 6th National Report for the Convention on Biological Diversity. Over 10 funded programs achieved outputs desired (with very few delays) in 2020 despite the COVID-19 pandemic. The accomplishments listed in this Annual Report were achieved despite the decline in support via international and local volunteers due to travel restrictions. We now launched regular online volunteer meetings (monthly) and we started to build (virtually) "Friends of PIBS" (people willing to help remotely). While our unrestricted donations in 2020 were about 1/4th of that in 2019 (due to lack of travel on fundraising tours and lack of visitors who usually donate), we are optimistic that we will continue our growth (of course the more support, we have the more accelerated growth we have). In fact our accomplishments summarized below reached global recognition. For example, we were invited to give dozens of webinars to a global audience including at the European Citizen Science Association conference. Prof. Qumsiyeh was also recognized with two prestigious awards for establishing the Palestine Institute for Biodiversity and Sustainability (Paul K Feyerbrand and Takreem Awards). Within this institute, we also have a sense of belonging and we care for each other as a family. We had Summer Shaheen leave us to pursue her master degree, and we had one of our previous team members finish her PhD in Germany. Reena graduated with an M.Sc. and continues to work with us. We are proud of all these accomplishments. What we hope to do for 2021, with your support, is more work on e-learning, better use of audiovisual, increased use of social media, hands-on children's science education, civic education leading to cleaner environment, more climate change education and citizen science programs, and beginning construction on the new Green Building. We have never been more optimistic about the future. Please consider increasing your involvement with our work, and if you are new, consider joining a team that is making a difference in life (people, fauna, flora) in this corner of the Fertile Crescent: The Holy Land, the Land of Hope and Renewal.

The team

The team includes 9 staff members, dozens of volunteers, and hundreds of supporters.

Dedicated to all the friends we lost in 2020

Luke Hodgkin, Robert Fisk, Tim King, Awni Alkhatib, and many other friends of the Museum.

2 Research and Publications

- Handal, E.N. A Teratological Record of the Southern Green Stink Bug Nezara viridula (Hemiptera, Heteroptera, Pentatomidae) from the Occupied Palestinian Territories (West Bank). Jordan Journal of Natural History, In press.
- Handal, E.N. and M.B. Qumsiyeh. Status and Distribution of the invasive Myna Acridotheres tristis (Linnaeus, 1766) in the Occupied Palestinian Territories (West Bank). Sandgrouse, submitted.
- Handal, E.N. and M.B. Qumsiyeh. 2019 (published 2020) The First Record of a Bat Found Ensnared by a Plant in the Occupied Palestinian Territories. Jordan Journal of Natural History, 6:58-59.
- Handal, E.N., G.H. Qumsiyeh, S.Y. Hammash and M.B. Qumsiyeh. 2019. (published 2020) Status and Conservation of the Striped Hyena (Hyaena hyaena) in the Occupied Palestinian Territories (West Bank). Jordan Journal of Natural History 6:11-18
- McHugh, C., S.Shaheen and M.B. Qumsiyeh. 2020. Agriculture Connected to Ecosystems and Sustainability: A Palestine World Heritage Site as a Case Study. Al-Marsad. In press.
- Mourad-Hanna, E, K.G. Friberg and M.B. Qumsiyeh. 2020. Traditional Knowledge and Use of Wild Plants in Palestine: Case Study in Artas. Palestine Exploration Quarterly. In press.
- Pahl, J. and M.B. Qumsiyeh. 2020. Orchids from the West Bank (Occupied Palestinian Territory). Mediterranean Botany. In press.
- PMNH Team. 2020. Serving Humans and Nature in Palestine. Bethlehem University Magazine. 27(2):10.
- Qumsiyeh, M.B. Giving Hope and Getting Results for Sustainability in Palestine. Kapitál (Slovak cultural monthly journal).
- Qumsiyeh, M.B. and M. Abusarhan. 2020. COVID-19 Impact on Biodiversity in Palestine. J. Asia-Pacific Biodiversity. In press.
- Qumsiyeh, M.B. and Z.S. Amr. 2020. Protection of Endangered Ecosystems via Establishing Museum Research and Education Facilities: Experience from Palestine and Proposal for the Arabian Gulf. Museums in the Middle East Journal (UAE), 1: 29-32.
- Qumsiyeh, M.B. and M. Abusarhan. 2020. An Environmental Nakba: The Palestinian Environment Under Israeli Colonization, Science For the People, Volume 23, number 1 (see LINK).
- Qumsiyeh, M.B. and M.H. Najajrah. 2020. Islamophobia and Zionism. Chapter in a

book on Islamophobia, edited by Nadia S. Kazi.

- Saeed R. and M.B. Qumsiyeh. 2020. 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). 42: 69-77.
- Thaler, M., A. Al-Wahsh, A. Meuser & M.B. Qumsiyeh. 2020. Macrofungi from The Hebron and Jerusalem Hills of Palestine. Mycotaxon. 135(1): 1-23.

Other articles and reports

- Conservation Careers highlights: Helping Palestine's people live in harmony with nature: LINK
- ICAHD UK Interview with Prof Qumsiyeh on resisting oppression and optimism of the will: **LINK**

Qumsiyeh donates award money to BU: LINK

Class on Indiginous struggles - Palestine given at Fielding University LINK

Impact of the Israeli Occupation on Palestinian Science, Education, and Research: A Conversation with Palestinian Colleagues on the infringements on the rights to science and education of the Palestinian people: **LINK**

3 Education and Workshops

In the January and February 2020 period, we received over 500 locals and more than 200 international visitors to the Museum. Then on March 5th we entered into lockdown followed by other restrictions on movements and travels (e.g. no school visits). We had to adapt by developing new educational awareness outreach models. We continued to help schools either starting or strengthening educational clubs. We also worked with five schools (>120 students) this year under the Education program to enhance awareness of environmental clubs near the world heritage site (see section on this). We also have collaborations with the Paris Museum of Natural History and the Natural History Museum in London regarding education about plants and animals, respectively.

Educational workshops held by PIBS			
Title	Host/Speaker	Date	
QGIS	Julius Pahl	20 March	
Biodiversity paper	Mazin Qumsiyeh	1 April	
Biodiversity and GPA	Mazin Qumsiyeh	8 April	
Sustainable Development	Mazin Qumsiyeh	15 April	
Environmental DNA	Prof. Alfried P. Vogler	22 April	
Project Design and Proposal Writing	Mazin Qumsiyeh	29 April	
Monitoring and Evaluation	Linda Majaj	6 May	
Media Strategy	Reena Saeed	13 May	
Darwin Report	Abdel Salam al Janazreh	21 May	
Environmental Impacts of Occupation	Mazin Qumsiyeh	4 June	
Green Museums	Elias Handal & MQ	4 June	
Management and Leadership	Mazin Qumsiyeh	17 June	
Circadian Clock	Duaa Subhi	29 July	
Information Management	Mazin Qumsiyeh	5 August	
Museum Management	Mazin Qumsiyeh	12 August	
The Impact of Israel's Annexation Plans on Palestinian Research and Higher Edu- cation	Mazin Qumsiyeh	21 August	
BDS, Capitalism, Colonialism and the Climate Crisis: Connecting the Dots	Mazin Qumsiyeh	9 September	
Impact of the Israeli Occupation on Pales- tinian Science, Education, and Research	Mazin Qumsiyeh	26 September	
On indiginous struggles - Palestine	Mazin Qumsiyeh	27 September	
Taxidermy	Walid Basha	22 October	
How indigenous people of Palestine fight the domineering system of colonialism and protect our nature and our planet @Inter- national Wilderness week	Mazin Qumsiyeh	23 October	
Enhancing Participatory Approach in ac- tions of Palestinian Museums and Cul- tutal Organizations	Mazin Qumsiyeh	25 October	
Artas Agriculture Workshop	Mohammad Abu Amriyeh	5 November	
Environmental Emergency Webinar	Mazin Qumsiyeh	7 Novermber	
Middle Eastern Social innovation Lab MESIL lecture on human and nature sus- tainability in Artas	Mazin Qumisyeh	17 November	
Lecture on ornithology (BU Zoology class)	Elias Handal	4 December	
Conditions of Palestinian farmers and ways that Palestinians are solving their agriculture crisis amidst Israeli occupation for a class at the Cuyahoga Community College (Tri-C)	Mazin Qumsiyeh	9 December	

Title	Host or Speaker	Date
Working with farmers in marginalized communities	Summer Shaheen	18 August
The link between human diversity, biodi- versity and sustainability	Linda Majaj	25 August
Founding and Director of the PIBs and PMNH	Mazin Qumsiyeh	31 August
Management challenges and opportunities in pandemics and colonialism	Abdel Salam Al Janazreh	9 September
Environmental Awareness Focusing on Children	Elias Handal	15 September
Volunteerism in Palestine Today: Ad- dressing the Challenges of Occupation and Pandemic	Jessie Qumsiyeh	22 September
Role of Community gardens and garden- ing at home for the renaissance of our Palestinian society in light of the Corona pandemic and the Israeli occupation	Mohammed Najajreh	29 September
Settler Colonialism and the Natural Environment with PMNH	Reena Saeed	6 October
Improving the State of the Palestinian En- vironment via Public Participation	Mohammed Abu Sarhan	13 October

Nine Quarantine Renaissance Webinars

Title	Host or Speaker	Date
Scorpion Biodiversity and Interlope Divergence at "Evolution Canyon"	Elias Handal	5 June
Climate Change Paper & GIS in Biodiver- sity Research	Julius Pahl	10 June
Color morphs of flower, exhibit design	Elias Handal & MQ	24 June
First Aid I First Aid II First Aid III First Aid IV First Aid V First Aid VI	Dr. Abdul Hameed Ja'afreh Dr. Abdul Hameed Ja'afreh	28 September 1 October 15 October 22 October 29 October 5 November

The continuing education and First Aid sessions



First Aid training



Darwin Initiative event with almost 100 stakeholders

4 Conservation and Animal Rehabilitation

Our conservation efforts continue unabated despite the challenges. Below are some new initiatives for 2020.

In-situ and ex-situ plant conservation

We counted so far over 388 species in our botanical garden. Thanks to funds from the Botanic Gardens Conservation International (BGCI) and the Critical Ecosystem Partnership Fund (CEPF), we were able to advance a number of issues (still ongoing through 2021):

- Enhanced the botanical ecosystem to serve as an oasis in an urban area by introducing many new trees, perennial and annual plants. We already brought many and by end of 2021 there will be over 550 species.
- We worked on the threatened orchid populations with the aim to establish an orchid corner in the garden that serves for ex-situ conservation plus advancing our study of orchids in protected areas in the West Bank (for in-situ conservation).
- Educational materials were developed for use especially during the pandemic



National plant of Palestine: $\mathit{Iris}\ \mathit{haynei}$

Gynandriris sisyrinchium at the museum

Education and research programs on conservation

These continue to accelerate. They are reported in chapter 2 and 3.



Sampling at the pond near Jinsafut



Biodiversity Conservation Conference as part of the Darwin Initiative project

Starting new national conservation programs

This year we became more visible nationally and were trusted by the State of Palestine to work on the National Biodiversity Action Plan and to produce the 6th national report for the Convention on Biological Diversity (CBD). Both are done in close partnership and cooperation with the Environment Quality Authority (EQA) and relevant stakeholders.

Coincidentally we also had a project funded by the Royal Belgian Institute of Natural Sciences (RBINS) and the Management and Reporting of Biodiversity Data (MRV) Belgium to enhance conservation, reclamation, and strengthening of biodiversity via creating structures for research on protected areas, especially in compliance with CBD guidelines. A further aim is to disseminate the strategies adopted by the national authorities.



Meeting with representatives of the EQA

Animal rehabilitation

We rescued and released many injured animals in 2020. This was done in collaboration with the EQA and local communities. A success story is the rehabilitation of a female striped hyena, Linda. We also successfully rehabilitated and released an Eagle Owl in March, just before the lockdown started. It is one of the largest owl species in Palestine and the world. This goes in line with our efforts to protect threatened and endangered species in Palestine. On the anniversary of *World Environment Day*, the PMNH released a long-legged buzzard. It was rehabilitated over 11 months at the museum in coordination with rehabilitation specialists for birds of prey in Germany, Nature Support e.V.. We have just received a juvenile Eagle Owl in mid December for rehabilitation. The owl appeared to be healthy and we expect to release it soon.





Palestine Action for the Planet (PAP)

Palestine Action for the Planet is one of many new initiatives related to conservation we engaged in this year in education on issues like combating climate change. It is an informal network to do activities related to conservation. **Here** is an article from PAP.



5 Unity and Diversity in Nature and Society



This project's main objective is to increase respect for ourselves, each other, and nature leading to conflict resolutions as a result of joint actions (across the Green Line) that are mutually beneficial leading to sustainability of human and natural systems. The three-year long (2020-2022) project aims at valuing diversity agricultural, human and natural. It is funded by the EUPI and in partnership with the Galilee Society and the Palestinian Center for Rapprochement Between People. Accomplished so far:



- Setting up of three centers at the three partner institutions is ongoing. This includes a Biodiversity Center (PIBS, Bethlehem), Human Diversity Center (PCR, Beit Sahour), and Education Center (GS, Galilee). The three centers have structures, staffing, and resources to become regional and even global centers.
- Furnishing and creating a mobile educational unit to go to remote locations
- Selected, funded, and trained nine researchers for research related to diversity. Other in-house researchers were also engaged and produced important relevant research (see chapter 2).



Volunteers at work in the molecular laboratory



Some images from the research workshops

6 Molecular Biology

Funded by the oldest scientific association in the World (The Royal Society, London UK) and in partnership with the Museum of Natural History of London, PIBS is engaged in capacity and infrastructure building activities (Dec 2019 - Nov 2022). They will lead to the setup of an advanced center for molecular studies of fauna and flora by the end of the project.



Desktop study and an outline of the main research projects to be done in the following years (see **LINK**).

Collected and catalogued over 3,000 specimens from eleven locations in the West Bank, focusing on the protected areas that are most threatened.

Dr. Alfried Vogler from the Natural History Museum in London gave a **public lecture** to introduce new research technologies that will be implemented through the project. The audience included researchers and students (MSc and PhD) from Palestine and the UK. The lecture can be seen **here**. Also, we highlighted the project on our social media platforms including, for example, this post on **Facebook**.

Created a **new biodiversity center**, funded by the Royal Society and the EU Peacebuilding Initiative. The molecular unit within this center which is still under construction, will be well equipped to do cutting-edge molecular research and to host (as well as train) local and international students and researchers.



Prof. Alfried Vogler



Design of the new molecular laboratory under renovation at PIBS



The new molecular laboratory (top) and taxonomy lab

7 Serving Nature and Society in a World Heritage Site

This project constitutes conservation, agriculture, research, and education in the UNESCO designated world heritage site in the Al-Makhrour Valley area just south of Jerusalem (encompassing communities of Battir, Husan, Al-Walaja, Beit Jala). Cooperating with our colleagues locally and in the UK and funded by Darwin Initiative (UK), the aims of the project included sustaining human and natural communities in the valley system.



Some of the achievements so far are:

- Enhancing resilience of communities through traditional and sustainable agricultural practices and direct support of agriculture to 81 households farmers (22 in Hussan, 20 in Battir, 13 in Al Walaja, and 26 in Beit Jala). The farmers benefited by doing eco-friendly agriculture resulting in increased production. They received seeds and 87000 seedlings and produced approximately 11.4 tons of vegetables.
- Working on conservation through restoration of key habitats critically selected at three sites in the Al-Makhrour valley. The restoration action focused on improving ecological functionality, preventing soil erosion and enhancing carbon dioxide absorption on site.
- Supporting women households in the four target communities through four grants (£4000 each) to four existing/new women business groups. These selected women groups became even more motivated after the pandemic hit. The women projects were launched during September and the women immediately initiated their activities and offered services and sales of amazing products.
- Increasing awareness and shared learning by conducting exchange visits between communities, during which traditional farming practices and success stories were exchanged.
- Engaging five schools in Bethlehem District (Walaja, Battir, Husan, Beit Jala) via online workshops in November 2020. Over 120 students participated and learned about biodiversity in the Valley and in Palestine. Participating students also received project sweatshirts and hats.









Images from activities with locals and school children from the Al-Makhrour valley



The Assistant Director-General for Culture

United Nations Educational, Scientific and Cultural Organization des Nations Unites pour réduction, is science el la culture Organization de las Naciones Unites Doganization de las Naciones Unites parts la Educación, la Ciencia y la Culture Offisequementa Masuña no songotcas offisacatese, seguis e symstrype iscana l'An Intrana songotcas offisacatese, seguis e symstrype iscana l'An Intrana seguis e symst

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-Makhrour 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

7, place de Fontency 75352 Paris 07 5P, France Tel. : +33 (0)1 45 68 14 20 www.unesco.org

Response letter from the UNESCO

8 Cultural Heritage

The ethnography section continues to attract the interest of researchers and visitors. The smartphone game developed with the name Sido AlMuzare' (سيدو المزارع) attracts the interest of many children who learn about traditional farming techniques and proverbs. We also leverage the pride in our cultural heritage ongoing conservation projects in villages like Battir and Artas which have to contend with multiple pressures including the Israeli occupation.



Ethnography exhibition

9 Medical Zoology

We are creating a medical zoology and medical entomological unit that serves the needs of the Palestinian population to study scorpion stings and animal bites. This unit is created via a project funded by the Ministry of Education and Higher Education to Bethlehem University. The new unit will research areas directly relevant to the health of human beings in Palestine, including animals that act as vectors of human or livestock disease. Currently, we are doing research on mosquitos, sandflies, poisonous animals (scorpions and snakes), birds (myna birds), and mammals (hyenas). We have also been working along-



Mohammad Abusarhan and Reena Saeed from the medical zoology team

side the Ministry of Health (MoH) to analyse the extensive records at MoH databases of the stings and bites encountered in the last five years and create a guidance of accurate species encounters to health clinics and hospitals.

10 Green Oasis in Bethlehem for Plant and Ecosystem Conservation

This involves a series of projects that transformed the botanical garden to become an exploration, education, and conservation garden in Bethlehem. A number of subprojects and activities have been achieved through partnership.

Green Playground: Children's Ecological Garden for Play and Learning



Taking inspiration from nature and using ideas seen in other successful playgrounds using recycled and natural material, we proceeded to rehabilitate and develop a section of the land in the museum into an interactive exploration playground/children garden. The recent phenomenon of children's gardens – both the landscape design and the educational play activities that are integral to their implementation – is based on the key concepts and research that demonstrate how children learn through play and provide strong evidence that outdoor play experiences in natural settings are essential components for building knowledge in many fields, as well as personal skills. We designated three areas of the garden as safe children's areas built around the existing greenhouse and the aviary/animal room: a community garden, playground and discovery area. We thus sought and received complementary funding from Playground for Palestine, Rotary Foundation, Western Lieutenancy of the Equestrian Order (USA), the Jerusalem Fund, and the Association France Palestine Solidarity which collectively cover the costs for (a) infrastructure for garden including an amphitheater, terracing, soil, wood, etc., (b) playground and exploration area material, (c) supplies for gardening (tools, seeds, seedlings, etc.), (d) program development and activities (trainer, transportation, etc.).



Neighbourhood children exploring the playground

Barefoot Sensory Path

The idea of a barefoot sensory path was suggested by a Museum intern, Julius in May, 2020 and the path was completed in June 2020. It offers our visitors to have an enjoyable experience to walk barefooted. Barefoot walking is a healthy and fun way to connect with the environment. Filled with various materials found around the museum ground, this path provides different sensory input and activates the more than 20 muscles of the foot. It serves to enhance the circulation of the foot, build up balance and strengthen the link between brain and extremity. As feet are put in shoes, their presence and full functionality are often neglected. Come and discover the prickle and softness of the earth and feel what is around you!



Community Garden

Our community garden continues to benefit the local society even after the project duration has ended. With self-funding since December 2019, the activities were abruptly halted by the initial lockdown during this year's spring season. However the interest in gardening has recovered well afterwards, and families care for their plots. Despite the challenges, the community garden has received even new families.



The community garden's blessings



Work on the family beds

11 Library and Volunteer Workspace

We consolidated the existing book library and added more books into a newly acquired space on the fourth floor of the building. Here the library with computers (some desktop computers will be delivered by end of Dec 2020) will act also as a workspace for volunteers. To make it more exciting, one of the rooms on the same floor has been turned into a bedroom. Volunteers and staff can stay there as needed (for example we utilized it during the curfews imposed in pandemic time). In addition a kitchen is provided for their use.



Meeting in the new library facility

12 Volunteers

Our volunteer force was going strong until the Coronavirus lockdown that started on 5 March 2020. Volunteers scheduled to arrive after that date were not able to do so. Those who were already with us had to cut short their stay. Nevertheless we had over 10 international volunteers before March 4th and only a few afterwards. Zohar is a long term volunteer with us. She, Mazin and Jessie even stayed at the museum during full closures in the Bethlehem area. As far as local volunteers, we had 35 local volunteers who spent time (anywhere from one day up to 2-3 weeks) working with us on various aspects (garden, exhibits, education, media, social issues etc). During the olive harvest in late October, we received over 20 volunteers on one day and a few local ones on the other three days of harvest. To volunteer with us, please go to this LINK.



Volunteer effort for the olive harvest

Our hats off to all present and past volunteers who made tremendous contributions to what PIBS/PMNH is today. Many alumni continued to be interested in our ongoing development and offered to help from afar. To stay in touch during the COVID-19 Pandemic, we began to hold monthly volunteer virtual meet-ups beginning in July 2020. See a summary of one of the meetings and photos **here**.



PIBS/PMNH volunteers and intern, June 2020

13 Media and Visibility

PMNH/PIBS quickly adapted to the pandemic by developing remote education modules such as virtual tours of the Museum done via videos, e.g. on the **GARDEN**. We were on TV shows, radio programs, interviewed for newspaper and magazine articles, were visible in social media and much more (over 120 in total this year). Prof. Qumsiyeh also sends weekly messages to over 50,000 people (more than half of the messages are specifically promoting what we do at PIBS/PMNH. **Here** is an example of one such blog. Below you also find recognitions/awards examples (showing that our work is appreciated by others). Also Prof. Qumsiyeh worked as board member and advisor to a number of international and local groups, for example, **Scientists for Palestine**.

January	Environmental education for children, Bethlehem Bible	LINK
February March	College This week in Palestine National Geographic video on Al-Makhrour A brief video explaining an example of the Education	LINK LINK LINK
	Programs carried out by the Palestine Institute of Bio- diversity and Sustainability at Bethlehem University	
April	Teaching for the Future	LINK
May	Orchids in Palestine	LINK
June	Webinar on Environmental Impacts of Occupation by Dr. Mazin Qumsiyeh	LINK
July	Rotary club funds the community garden	LINK
August	Dr. Qumsiyeh selected as Honorary member of ICCA	ICCA
	Consortium	T TNITZ
C l .	Interview with David Rovics	
September	ICAHD UK Interview with Prof. Qumsiyeh on resisting oppression and optimism	LINK
October	Can unity and diversity in humans and nature help re- shape our world after the coronavirus pandemic? هل يستطيع تماسك البشرية والطبيعة وتنوعهما المساعدة	LINK
	في إعادة تشكيل عالمنا بعد جائحة كورونا؟ Indigenous people of Palestine fight the domineering sys-	LINK
	tem of colonialism and protect our nature and our planet	
December	Interview at Maan TV about Biodiversity and Natural Heritage in Palestine	LINK

Examples	of visibility	action	by	month
-	*		•	

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FEATURE STORY

Serving Humans and Nature in Palestine

The Palestine Institute for Biodiversity and Sustainability (PIBS) accelerated its activities in the last few months.

Two major projects have already started. The first project, funded by the Royal Society, working with the Natural History Museum in London under its major collaborations in molecular biodiversity projects.

The other project to enhance diversity and unity in nature and in human communities, is funded by the European Union in collaboration with the Galilee Society and the Palestinian Center for Rapprochement Between People.

In January, the Founder and Director of PIBS, Dr. Mazin Qumsiyeh, traveled to the USA and Switzerland and gave a series of 22 talks related to Palestine and the work done at the PIBS.

At the Massachusetts Institute of Technology in Cambridge "MIT", Dr. Qumsiyeh attended and gave a presentation at the Scientists for Palestine meetings. He was elected to the organizing committee to structure more effective work between scientists in Palestine and those in other countries.

There were also discussions to establish an American-Palestinian Science Bridge similar to the one which already exists



with Germany. Two staff members from PIBS had gone to Germany on exchange visits last summer.

Dr. Qumsiyeh also visited Switzerland and the US, and held meetings with key people at museums, research institutes, and botanical gardens. As a result, the PIBS project on Climate Change, which previously was done in collaboration with the City of Geneva and Zoi Environment Network, will now expand. The PIBS has collaborated on land snail research with the Natural History Museum of Bern, Switzerland and will expand this to include other groups of animals.

A new annual report was released in January and summarizes achievements in 2019 in different areas. It is very beautifully illustrated with photos of these activities: it can be downloaded through scanning the QR code:





The PIBS continues to serve nature and humans in Palestine through agriculture, permaculture, rehabilitating and releasing injured animals, R&D, or conducting environmental awareness and education programs to people as young as kindergarten and seniors even in their 90s.

The PIBS continues to educate and act for conservation and we welcome hundreds of local and international visitors, volunteers, and supporters.











الإليسية: ٧ الغزيد من التغيير

متحف فلسطين للتاريخ الطبيعي ينهي توزيع أسُتال للموسم الزراعي السُتوي في وادي المخرور



Published story about seed distribution to farmers

Awards

The work of the museum and its team is highly appreciated in many areas. Here are examples of awards received.

• The Paul K. Feyerabend Foundation Award: LINK





Prof. Mazin B. Qumsiyeh, Director of the Palestine Institute for Biodiversity and Sustainability (PIBS) and the Palestine Museum of Natural History at Bethlehem University, received the prestigious "2020 Paul K. Feyerabend Award – A World of Solidarity is Possible."

Prof. Qumsiyeh said he accepted the award on behalf of the team at PIBS because he believes "it is always a team effort." He donated the financial component of the award (CHF 3,000) to PIBS which is part of Bethlehem University.

The Paul K. Feyerabend Foundation (PKF) recognized Prof. Qmsiyeh's work "for diversity (biological as well as cultural and religious), integrity (esse quam videri), justice, respect for human rights, absolute rejection of racism and untiring motivation for positive action."

4 BETHLEHEM UNIVERSITY

> • TAKREEM gave Prof. Qumsiyeh its prestigious award for sustainable development at a ceremony on 28 November 2020 (for 2019 nomination delayed ceremony due to COVID-19). Prof. Qumsiyeh was honored for his work establishing PIBS/PMNH and more. You can find the segment of the video with Prof. Qumsiyeh from the virtual award ceremony **HERE**.

Partnerships

The museum continues to build partnerships with governmental and non-governmental institutions to advance nature conservation and sustainable human communities.



Signing MOU (7 December 2020) between Palestine Institute for Biodiversity and Sustainability at Bethlehem University and the Palestinian Environment Quality Authority



Delegate visit: Archbishop Leopoldo Girelli, first Counselor Tomasz Grysa and Bethlehem University Vice Chancellor Brother Peter Bray

14 Fundraising and other Support

There are many other ways to help us besides volunteering. Donating (money or in kind) is an important way to help us build the institute and advance our collective work to serve nature and society. Funding from grants for specific projects continued and actually increased during this difficult year. But this is what they call restricted funding for specific projects (see accomplishments listed above for activities in those areas). Unrestricted funding or foundational support was already limited (see 2019 annual report on our homepage) and declined significantly in 2020 (to 1/4th of the amount in 2019) for various reasons:

- Many donations came to us from local and international visitors to the museum. Those visitations were essentially stopped for most of the 2020 because of the COVID-19 pandemic.
- 2. Staff travel abroad was also stopped because of the global Covid-19 outbreak. In particular, Prof. Qumsiyeh used to travel overseas annually to give dozens of lectures and this had generated lots of enthusiasm and donations (in money and in-kind like books etc). This especially came to a halt
- 3. The economic and health situation around the world suffered because of the pandemic. Many donations were redirected to health issues.

The COVID-19 situation has also impacted our work in other ways. As noted above, volunteering declined. Local and international volunteers used to do much of the work in and around the Institute. As such help declined in 2020, we were forced to spend more of our money to do tasks that volunteers otherwise helped to do before COVID-19 (like harvesting olives, garden work, etc.). To donate, please go to this **LINK**.

Nevertheless, PIBS/PMNH did receive several very generous donations. We would like to express our profound gratitude to the 121 donors in the year 2020 (as of December 30, 2020). Two-thirds of them are first-time donors to PIBS/PMNH:

Alison O, American School Beit Sahour, Andrew H, Association Switzerland Palestine, Association France Palestine Solidarity, Barbara D, Barbara H, Bath Friends of Palestine, Benjamin A, Beverly B, Brigitte J, Brooks M, Burhan G, Callum R, Caroline S, Clare S, Colin R, Colleen P, Conni E, Dany Q, David C, David K (Mr. & Mrs), Deborah D, Dennis R, Diana M, Diane W, Dirk H, Doris N, Edward C, Elaine W, Elizabeth A, Elizabeth O, Ellen B, Ellen R, Eugene F, Exeter PSC, Eyewitness Palestine, Fareed S, First Congregational Unitarian Church of Harvard, Francois B, Gary A (in memory of Guido), Growing Palestine Inc, Hassan F, Ireo B, Halderstein Owl Trust, James & Jennifer S, Janet S, Janice M, Jean G, Jennifer V, Jesse Maali House of Mercy Foundation, Joan R, John & Katherine R, John DP, John H, John K, John M, Jonathan G. (Mr. & Mrs.), Joseph V, Josephine R, Joy JK, Judith F, Julia B, Kanji W, Kristia C, Larry A, Layla C, Lea K, Lynn C, Marianna H, Martha WC, Mary A, Mary H, Maureen E (in honor of E. & D. Daniels), Max C, Michael W, Molly WC, Monica CK, Monique B, Nada A, Nader B, Noah H, Pamela S & Ben M, Pat WJ, Patricia A, Patricia AA, Patricia S, Paul dR, Paula & Frank P, Pauline J, Peggy A, Peter B, Promoting an Enduring Peace Inc, Qavi-Qumsiyeh Fund, Rainsford R, Rasha M, Ray & Kathryn V, Richard C, Robert D, Robert H, Roger H, Said & Jehad A, Sameer H, Sarah & Steve L, Shahla J, Sheila F, Sheila R, Simon H, St. Andrews Presbyterian Church, St. Louis Friends of Bethlehem, Stan H, Stefan & Anni B, Stephen L, Sue C, Sue P, Ted CE, Terry W, Thoric C, Wally F, William K, and Zuhair S.

Logos of funders











15 The Future



Our future is very bright with your support (a collective effort). In 2021 we pledge to:

- Work in partnership with others to benefit thousands of locals and internationals, whether in-person visits, via our forthcoming mobile educational unit, or via online platforms and new technologies.
- Publish 20 research papers in areas ranging from biodiversity conservation to taxonomy to ecology to molecular genetics to museology.
- Establish "Friends of PMNH/PIBS" in several countries to help our work remotely and to raise funds.
- Work on the National Biodiversity strategy and the 6th CBD report for Palestine.



Architectural design of the future Green Building