

# Annual Report 2022

---

Palestine Institute  
for Biodiversity and  
Sustainability at  
Bethlehem University



# Contents

|  |    |
|--|----|
| Context.....                               | 4  |
| Environmental Education and Awareness..... | 6  |
| Capacity Building.....                     | 12 |
| Botanical and Community Gardens.....       | 14 |
| Animal Rehabilitation Unit.....            | 18 |
| Conservation and Outreach.....             | 22 |
| Research and Publication.....              | 26 |
| Media and Visibility.....                  | 28 |
| Fundraising and Future Projects.....       | 30 |
| PIBS Team, Volunteers, and Donors.....     | 34 |



# Welcome!

PIBS and its surrounding botanical garden is 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.

## Context

**Palestine** is the Western Part of the Fertile Crescent where our Canaanitic ancestors developed agriculture and domesticated animals some 12,000 years ago (the dawn of civilization). During this time, Palestine was a multiethnic, multicultural and multireligious society. Rare periods of conflicts arose from the attempts to reshape the country to be monolithic (e.g. the Crusades and now Zionism). Colonial situations have only three possible outcomes: Algerian scenario (colonizers depart, very costly to all), US/Australia scenario (genocide of natives), or living in one country (most common outcome found in 95% of the 194 countries on Earth). But we cannot wait for a better future - we must make it happen and it must be a sustainable future for all living things.

We took the first step of making that future happen in 2014 when Prof. Mazin Qumsiyeh, Jessie Chang Qumsiyeh, with the support of Bethlehem University and scores of selfless volunteers, founded **the Palestine Institute for Biodiversity and Sustainability (PIBS) at Bethlehem University**. Over a short period of eight years, we opened the **Palestine Museum of Natural History** (2017), the **Ethnography Exhibit** (2019), and the **Biodiversity Center** (2021), all made possible with our small but dedicated team, dozens of grant funders, hundreds of generous donors, volunteers, and supporters. Since its establishment, PIBS has been awarded grants totalling \$3.4 million for 32 projects that have and continue to make a difference in our society.

## 2022 Achievements - A Summary

2022 has been another remarkable year in every aspect for Palestine Institute for Biodiversity and Sustainability and Palestine Museum of Natural History at Bethlehem University. We completed the work on formulating Palestine's National Biodiversity Strategy and Action Plan (NBSAP). We inaugurated the Mobile Educational Unit (mobile museum). We successfully concluded four grant projects during 2022 while working to implement seven others, two of them are new.

This year, thousands benefitted from our Institute, thanks to both the physical and human infrastructure. The Institute's cadre of dedicated staff and volunteers offer services on shoestring budgets that make a difference to people's lives while protecting nature. PIBS is 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.

As you browse this annual report, we think you will agree that much progress was made ... yet the best is still to come with your support. So please do (or continue to) partner with us. You will find the experience rewarding.

2022 IN REVIEW

220 educational events  
6,500 beneficiaries  
43 field trips  
25 manuscripts produced  
87 volunteers (50 females & 37 males)  
14,800 volunteer hours  
\$51,600 in unrestricted funding

# Environmental Education & Awareness

## Unity and Diversity in Nature and Society

PIBS partnered with the Galilee Society and the Palestinian Center for Rapprochement between People and the Environment Quality Authority in this three-year project (funded by the EU) to **enhance biological and human diversity** and this year was full of activities. It was crowned by launching the Mobile Educational Unit (a mobile museum), as well as holding the Second Global Conference on Biodiversity and Human Diversity, developing multiple educational modules, hosting a week of workshops to celebrate International Biodiversity Day, and much more.

## Mobile Educational Unit (MEU)

The first mobile exhibit of its kind in Palestine - is now fully furnished with specimens and educational material. This gives us the ability to serve marginalized communities in Palestine. The MEU was funded by the EU and is literally a museum on wheels that supports our goals in accessibility of education. We officially launched the MEU on May 10, 2022 at the Secondary Girls' School of Bethlehem. There were 95 in attendance including EU representatives, officials from the Ministries of Education, Agriculture, Higher Education, Tourism and Antiquities, and the Environment Quality Authority. We then participated in the Earth Day event on May 13, 2022 at the Cremisan Monastery in Beit Jala. With our Mobile Museum on-site, we educated 180 children and teens from different scout and school groups about Palestine's biodiversity and natural history - just as we would if we were in our Exhibit Hall at the Museum in Bethlehem. With help from the Ministry of Education, we



compiled a list of 47 schools from marginalized communities in the West Bank to which our education team will visit with the MEU. In 2022, we brought the Unit to 14 schools in the Bethlehem and Hebron governorates. Our MEU team will visit the remaining 33 schools in 2023.

### The Second Global Conference on Biodiversity and Human Diversity

We had a successful global conference which gathered 179 attendees (81 male and 98 female) from Palestine and many countries regionally and globally to discuss pressing issues. Scholars, researchers, university students, nongovernmental organizations and activists presented and discussed their findings in the fields of biodiversity and human diversity. A special session discussed national strategies and deepened cooperation. Officials representing different ministries such as the Ministries of Education, Agriculture, Culture, Higher Education, Tourism, and the Environment Quality Authority helped bridge the science-policy gap. Ten wildlife enthusiasts contributed their amazing photos to an exhibit of the rich biodiversity of Palestine.

### Environmental Education at Cremisan

Our continued partnership with the Salesians of Don Bosco at the Cremisan Monastery (a natural reserve within the governorate of Bethlehem) offers a unique and exciting adventure for children and all participants. Over a dozen activities were held specifically for children in 2022. For example, in one activity participants received an



“exploration kit” - magnifying glass, compass, measuring tape, forceps, specimen tube, a notebook and a pencil - so they could explore natural surroundings as young scientists.

The program at Cremisan promotes respect and care for our environment as participants explore the monastery grounds, complete craft projects and learn about agriculture and the products made including juice, olive oil, and vinegar. We emphasize the responsibility of the individual to our environment and community of multiple faiths. PIBS also collaborated with the Don Bosco Planning and Development Office at Cremisan to develop and hold five Training of Trainers (ToT) sessions. Local scout troop leaders, representatives from the Right to Movement group as well as the Baba Sababa group completed hands-on workshops in upcycling/recycling while learning how to advance environmental education and healthy eating in schools and neighborhoods. Trainees also learned the importance of methodology to combine theoretical/scientific education with practical application in the field. We concluded with a live session where we demonstrated to the trainees how to conduct an educational workshop with children. Participants in ToT were given a digital Educational Toolkit developed in-house by PIBS educators.

Our Institute responds to community needs by helping to build professional skills of our local educators. We also gave 130 hours of training to 10 farmers on organic farming methodologies.

## Educational Activities

PIBS designed and hosted **36 activities** tailored to children's groups aged 3-14 years. These activities raise awareness, educate, and empower Palestinian youth and their families to take an active interest and role in their local environment. We tackle topics such as the worldwide plastic pollution crisis through our upcycling and recycling activities. We demystify sustainable agriculture on a small and large scale by demonstrating local, seasonal farming practices - growing, processing and harvest. We create experiences for children so they can see, taste, and feel Palestine ... and ultimately realize their connection and responsibility to their community and the world. During one of our activities, participants gathered herbs from our garden and learned about cultivation, drying, and processing to make foods like za'atar (thyme) pies. In another activity, they picked olives and made pickled olives. In a third activity they learned about honeybees and the crucial role of pollinators for human food production.

As part of our Educational Activities, we always try to develop interactive and intriguing educational modules that teach children environmental values in a fun and interactive way. This year, PIBS team and volunteers designed and produced an environmental "snakes & ladders" type of game to teach children positive behaviors and choices that can minimize environmental damage, using local places and scenarios in examples.

We continued to **update the exhibits** by adding new



specimens as well as designing new educational posters and brochures. This year, we added a baby hyena and a baby deer specimen to our collection. The mothers of these deceased and unborn young animals were unfortunate roadkills brought to PIBS by the Environment Quality Authority. The PIBS team turned the untimely death of these animals into taxidermy specimens for scientific and educational purposes. This reinforces the importance and need for wildlife protection and conservation education in our society.

Over 1,500 students and over 1,700 adults visited our Institute and toured our exhibits and gardens this year. The team gave over **270 talks online or in person** (e.g. to visiting delegations, groups, school and university field trips, and so on), benefitting over 4,000 people in 2022 alone.

We held a 'Celebration of Women' festival to promote awareness and support of women-led businesses, where 24 women entrepreneurs exhibited their products to a total of 220 attendees. Other activities were also held at PIBS that targeted empowering women, such as workshops and public lectures.

Through our **National Biodiversity Strategy and Action Plan (NBSAP)** project, we held 30 thematic workshops on areas ranging from agriculture to invasive species to climate change. These Thursday events were intended to be for building the national strategies and action plan but continued even after the NBSAP was completed.



# Capacity Building

Our team members continue to expand their knowledge by attending training programs in various areas ranging from red listing species and habitats to ecosystem restoration to geographic information system (GIS) and even to cytogenetics. Fourteen such trainings were held in 2022. Some examples are below:

## **May-July**

Three PIBS team members visited the Natural History Museum (NHM) in London to collaborate on research on DNA metabarcoding, compare specimens and records from Palestine from the 17th century, as well as exchange information on public outreach and education in schools.

## **August**

One team member traveled to Napoli, Italy, to attend the Goldrain Course 2022 which focuses on cytogenetics matters such as understanding how deletions and/or duplications of chromosomal segments cause developmental defects.

## **August-October**

PIBS organized with the Environment Quality Authority (EQA) workshops on geographic information system (GIS) and remote sensing, where the workshops were held at the institute and several staff members attended the training.

## **September**

Two team members traveled to Amman, Jordan, working on skills development for the national Clearing House Mechanism (CHM) and plan to launch a related website

in 2023. This will be a central source on all information related to biodiversity in Palestine.

## **October**

One staff member participated in a training with CEBios Foundation in Burundi, Africa, and presented there the achievements of the State of Palestine. In addition, they were trained in project cycle management, stakeholder analysis, problem and solution trees, biodiversity indicators, biodiversity governance and the Convention on Biological Diversity and policy briefs.

## **November-December**

PIBS team attended regular workshops to improve internal communications and cooperation so that we can continue to deliver on our mission. The team also held an annual retreat to discuss accomplishments of 2022, and plan for a more fruitful 2023.





# Botanical and Community Gardens

Our Botanical Garden, which has been a member of the "Botanic Gardens Conservation International" since 2019, continues to develop, with more species added (now totalling 482 plant species, belonging to 90 families, with 89 rare species, three parasitic species, and seven invasive species being combatted). Our **ex situ conservation program** refocused on two endangered groups in 2022: irises and orchids. We have six iris species and 19 orchid species in the program.

Our **Community Garden** supports up to 30 individual 2x2m plots which are used at no cost by the local community and at the time of this writing we are at **90% capacity**. It pleases us to see members and their families tending to and harvesting from their organic plots. We also use the beds that belong to PIBS staff and volunteers as an educational module in some of our weekly environmental educational events and walking tours of the facility.

At the Institute, we value food sovereignty and feel it is one of the best (and delicious) forms of sustainable living. As such, we source as much produce from our abundant Botanical Garden, greenhouse, fruit trees and wild plants as possible and use this to feed ourselves and guests at events. Examples of products include:

**Winter:** Rocket (arugula), spinach, broccoli, chard, cauliflower, cabbage, Palestinian carrots (small and purple), peas, lablab beans, parsley, mallow, fennel, green onion, clementine and lemons







**Spring:** Fava beans, artichoke, loquat, mulberries, goldenberries, lettuce, and thyme (za'atar)

**Summer:** Eggplants, tomatoes, black-eyed peas and gourds (these go on through to November), snake cucumber, squash, cucumbers, corn, grapes, and garlic

**Fall:** Peppers (both sweet and chili), figs, prickly pears, fennel seeds, basil, passion fruit, and okra

Products from our Botanical Garden include produce from trees such as loquats, clementines, pears, figs, cactus, almonds, nuts, olives, bananas and olives. We had a record olive harvest this year and our banana tree gave us fruit this year for the first time! There are also fish from the aquaponic systems, and eggs from the chickens that we harvest in all seasons. We also harvested 25 kilograms of organic honey from our Botanical Garden this year

Our efforts in composting, managing waste and seeking balance with our natural environment are constantly evolving, and the composting outhouse is one such example. Along the north-eastern border of the property now stands our **completed compost toilet** where literally nothing enters the municipal waste stream. Waste is collected in a bin below where it enters a completely automatic, sanitary and natural composting process. For human cleanliness and sanitation, we have conveniently outfitted the 3x3m structure with a porcelain sink and running water whose runoff enters a simple filtration system, adding moisture to the ground. The finished compost - this process takes about 1 year - is perfect for amending our land with rich nutrients, organic material, moisture, and a host of beneficial bacteria that is naturally occurring in all healthy soils.



WATCH THE VIDEO



We harvested 540kg of olives  
— yielding 120 liters of olive oil

# Animal Rehabilitation Unit

This year, we cared for many wild animals. Examples follow:

We rehabilitated Angela the **kestrel** which came to our care in August 2021. Before Angela came to us, she was kept as a pet and had a slim chance of surviving in the wild. After almost 10 months of rehabilitation, we successfully released Angela to the wild in May 2022 after positive evaluation of its ability to fly and catch prey. Another kestrel was brought to us in late January 2022. It was evaluated to be healthy and was released one week later.

A **badger** and a **stone marten** were confiscated from an animal trader by the Environment Quality Authority (EQA) and the Environmental Police. We monitored and evaluated their health and determined that they were healthy for releasing into the wild a couple days later.



We received several **striped hyenas** from the EQA during the year. Some were hit by cars accidentally and some were injured by humans deliberately and were already deceased when they were brought to us. We were able to treat and release one of the hyenas.

We received a juvenile **bat** (*Pipistrellus Kuhlii*) but unfortunately it did not make it overnight.

A healthy **chameleon** was brought to us because there was concern regarding its safety. To guarantee a safe environment for the chameleon, we released it in the PIBS garden.

We occasionally rescued **snakes** in or around populated areas and released them in a safe location.

Two European **badgers** were brought to us in one week in November. Both suffered from an unknown disease and were heavily infested by ticks and did not make it.

Some of the deceased animals were then processed by our staff taxidermists and will be displayed in our museum exhibits for educational purposes.





# Conservation & Outreach

A primary goal of our work is in conservation of natural and human communities. We were involved in numerous projects in support of this goal.

In 2022, PIBS completed the **National Biodiversity Strategy and Action Plan (NBSAP)** following our work in 2021 on the **6th National Report for the Convention on Biological Diversity (CBD)**. The latter lays out the status at the end of 2021 in terms of biodiversity, and the NBSAP lays out future (to 2030 and also to 2050) vision, mission, goals, objectives, milestones and action plans. The work for NBSAP involved over 30 thematic workshops, four main workshops for stakeholders, dozens of focus groups and interviews. In total, hundreds of people participated in one way or another.

The vision is that by 2050, human and natural communities will be coexisting in harmony, where biodiversity is valued, conserved, restored and wisely used, enhance ecosystem services, and deliver nature's benefits for all people equitably. The mission ensures that NBSAP Palestine "sets parameters, conditions, and programs to 2030, to be revisited every five years thereafter to achieve the stated vision via participatory strategic planning and implementation, capacity building, mainstreaming, and bridging science-policy-practice gaps". A detailed program, involving four goals, six objectives, 17 targets, and 76 action plans, was agreed to that will methodically bring us to achieve the mission.



## National Biodiversity Strategy and Action Plan for the State of Palestine



2022

During the process of formulating the NBSAP, we engaged in **awareness education, mainstreaming, and promoted public engagement**. We set up a listserv for exchange of information by almost 500 key stakeholders (NBSAP@palestinature.org) and posted weekly on Facebook to make the topic of biodiversity relatable and accessible to the public (including 2 videos for this purpose). We conducted weekly thematic meetings not only to gather data for NBSAP but also to ensure wide publicity towards implementation.

Our team also evaluated and created a new Protected Area Network (PAN) for the International Union for Conservation of Nature (IUCN), thanks to the funding by the Critical Ecosystem Partnership Fund (CEPF). New areas were selected and 22 designated areas were removed (designated by Israel for political purposes) research and planning began in April and results were presented in October at a two-day event in Amman, Jordan. Another conference was held in Amman in November that included categorizations of the 27 selected areas based on IUCN criteria and also included a field visit to Ajloun Nature Reserve in northern Jordan.

Under the project entitled **Ethnobotany and High Value Agriculture for Sustainability** with financial support from the Swiss Government, we engaged in research and development using local knowledge and modern scientific methods. Our research led to the identification of relevant data regarding high-value crops of medicinal, herbal, and food plants that benefit human health. This project also involved knowledge-transfer building-capacity for sustainability in a post-pandemic era.

In 2022, PIBS joined the Alliance of Nature Positive Universities. We also applied to become an Actor for the UN Decade on Ecosystem Restoration 2021-2030.

Our **clinical cytogenetics and research laboratories** continue to provide diagnosis of chromosomal abnormality in cancer, infertility, spontaneous abortion, and congenital abnormality. We provide discounted services to those who could not afford, and collect nominal fees from those who could. The number of patients we serviced grew from 240 in 2021 to 409 in 2022.



## Research and Publications

We have continued our field work throughout Palestine, prioritizing visits to areas especially deficient in collected data, as well as visiting previously designated protected areas in the West Bank. In doing so, we have greatly enriched our collections with new samples used in research and exhibits. We are incorporating novel techniques in our **molecular laboratory** to assess the biodiversity of fauna and flora samples in Palestine, such as environmental DNA (eDNA), metabarcoding, as well as classic barcoding to construct phylogenetic trees of different Palestinian fauna and flora families. We expect our research publications to expand with our molecular work. Invertebrate fauna specimens are mounted and preserved in special boxes, whereas vertebrate samples are either preserved in fluid preservation solutions, or mounted (taxidermied). Flora specimens are preserved in our **herbarium**. In 2021, our Herbarium Unit consisted of 150 specimens representing 37 species in 20 families, whereas now our herbarium has 1,340 specimens representing 679 species in 83 families.

The Royal Society grant project was in its third year in 2022. This year, three PIBS team members traveled with scientific specimens to the Natural History Museum (NHM) in London for training and research collaborations. The team met with British colleagues at NHM and at Oxford Botanic Gardens (OBG). Prof. Qumsiyeh also spoke at OBG's 400-year anniversary event.



Functioning molecular laboratories are part of our Biodiversity Center. The facilities both in Mar Andrea campus and at the main campus were enhanced by a collection of new equipment including a new flow hood, a fluorescent microscope, and a CO2 incubator.

The Institute produced **25 manuscripts in 2022**, listed below. As can be seen, they cover diverse areas, all related to our stated mission and goals. Most notable is that we led the effort for a special issue of *Africana Studia* dedicated to Palestine's environment, with many interesting articles.

Visit [palestinenature.org/research](http://palestinenature.org/research) to download these publications.



An air quality monitor device at PIBS is now online and is contributing data to the largest global air quality community.

Abu Hammad, A., M. Santos, M. Qumsiyeh, M. El Hannani, 2022. Editorial: Palestine – Environment and Conflict. *Africana Studia* 37, pp.5-6.

Abusarhan, M. Vitamin D Deficiency in the Palestinian Population. Master Thesis, Bethlehem University.

Alomary, A., Alkowni, R., Jarrar, S., Alsheikh, B. and Calabrese, G.J., 2022. Agro-management Approaches for the Sustainability of the Biodiversity of Ancient Olive Orchards in Palestine. *Jordan Journal of Natural History*, 9(1), pp.72-82.

Al-Sheikh, B. and Qumsiyeh M.B. Sambucus ebulus L as new to historic Palestine and nine other new records of flora of the West Bank. *Flora Mediterranea*. Submitted.

Benyei, P., A. Skarlatidou, D. Argyriou, R. Hall, I Theilade, N. Turreira, D.F. Latreche, A. Albert, D.N. Berger, M. Cartró-Sabaté, J.H. Chang,

et al., Challenges, Strategies and Impacts of doing Citizen Science with Marginalised and Indigenous Communities: Towards a toolkit that can be applied in all contexts: reflections from project coordinators. Submitted.

Handal, E.N. 2022. The Geranium Bronze Butterfly, *Cacyreus marshalli* Butler, 1898 (Lycaenidae: Lepidoptera), A New Invasive Species and Additional Records to the Butterfly Fauna of the Palestinian Territories - West Bank. *Jordan Journal of Natural History*. In Press.

Handal, E.N. and A. Christopoulos. Hindlimb malformation in *Heremites vittata* Olivier, 1804 from Palestine (West Bank). *Herpetology Notes*, 15: 849-852.

Husein, D. and Qumsiyeh, M.B., 2022. Impact of Israeli segregation and annexation wall on Palestinian Biodiversity. *Africana Studia*, 37: pp.19-26.

Mourad-Hanna E., K.G. Friberg, and M.B. Qumsiyeh. Temporal change in traditional knowledge and use of wild plants in Artas, Palestine. *Palestine Exploration Quarterly*, 154(2), pp.81-94. \*\*

Najajreh, M.H. Interview Dr. Issa Musa Albaradeiya . *Africana Studia*, 37, pp.125-127.

Qumsiyeh, M.B. Qavi 1936-2017 In *Reminiscence*. Pakistan, p.172-174.

Qumsiyeh, M.B. and I.M. Albaradeiya. 2022. Politics, Power, and the Environment in Palestine. *Africana Studia* 37:9-18.\*

Qumsiyeh, M.B. and M. Abusarhan. 2022. Impact of COVID-19 pandemic on Biodiversity Conservation in the Israeli Occupied West Bank, Palestine. *Africana Studia* 37:49-58.\*

Qumsiyeh, M.B. Contemplation, in *Alphabets of Creation: Taking God To Bed (A book of Poems)* edited by Ananta Kumar Giri. *Authors Press*, India, p.325.

Qumsiyeh M.B. A Palestinian Reflection on What We Learn. In "Our Vision for Liberation: Engaged Palestinian Leaders & Intellectuals Speak Out", edited by Ramzy Baroud and Ilan Pappe. *Clarity Press*, pp.304-312.\*

Qumsiyeh M.B. Pollution in the "Promised land": How colonialism and mental colonization destroys peace with our environment. London School of Economics and Political Science. *Special Publication Ecologies of Fragile Landscapes*. In press.

Qumsiyeh, M.B and B. Al-Sheikh. Flora and conservation issues in two protected areas in Palestine: Wadi Al-Zarqa Al-Ulwi and Wadi Qana, submitted to the special issue of *Diversity* titled "Ecology, Conservation and Restoration of Plant Species."

Qumsiyeh, M.B. and Handal, E.N. Adaptive nature of chromosome variation in placental mammals and applicability to domestication and invasiveness. *Hystrix, the Italian Journal of Mammalogy*.\*

Qumsiyeh, M.B., E.N. Handal, B. Al Shaikh, M.H. Najajreh, I.M. Albaradeiya. Designating the first vernal pool microreserve in a buffer zone of Wadi Qana protected area, Palestine. *Wetlands*. 42:119.

Qumsiyeh, M.B., R. Saeed, M.H. Najajreh, N. Katbeh-Badr, H. Ikhmais, O. Simonett, A. Mackey, and M.E. Libert. Environmental Education and Climate Change in a Colonial Context. *Africana Studia*, 37: pp.109-121.

Qumsiyeh, M.B., R. Bassous-Ghattas, E.N. Handal, M. Abusarhan, M.H. Najajreh, I.M. Albaradeiya. Biodiversity Conservation of a UNESCO World Heritage Site in a Conflict Area: Case Study of designating a new protected area in South Jerusalem, Palestine. Submitted.

Sánchez, M.F.C.. The exploitation of natural resources in Area C of the West Bank as indicator of annexation. *Africana Studia*, 37: pp.27-47.

Titi, Eman. Planning and Developing Culture Heritage Tourism in Bethlehem. Master Thesis. Bethlehem University.

قمصية، مازن. 2022. تأملات فلسطينية فيما نتعلمه.. في رؤيتنا للتحرير، أحاديث صريحة للقادة والمفكرين الفلسطينيين تحرير: رمزي بارود وإيلان بابيه. 304-312. ترجمة د ابتسام محمد الخضراء المؤسسة العربية للدراسا والنش

قمصية: شجرة الزيتون - ليست مجرد شجرة عادية. مجلة روزانا - رام الله

\* Published in 2022 but listed as in press or submitted in 2021

\*\* Published in print in 2022 but published digitally in 2021

## Media and Visibility

Our website ([palestinature.org](http://palestinature.org)) and social media channels ([facebook.com/PIBS.PMNH](https://facebook.com/PIBS.PMNH), [instagram.com/palestinemnh](https://instagram.com/palestinemnh)) are the primary online communication and recruitment tools for the Institute. The website is currently available in six languages: English, Arabic, Spanish, Russian, French and German (Italian translation is underway). Facebook is our most active platform and is used for timely updates on events and news regarding the Institute. It allows us to interact with our followers from all over the world (United States scoring the highest on Facebook insights, and other countries include Jordan, United Kingdom, Germany, Egypt, Canada, France and Italy). Our audience consists of approximately equal male to female ratios. Year after year, our Facebook page continues to grow. For example, this year we increased the amount of facebook page reach, visits, likes and follows compared to last year.

Additionally, we continued to hold **monthly virtual volunteer/donor meetings**, including a powerpoint presentation by the PIBS team that showed our supporters our achievements of the month. This has become a tradition that connects us with friends around the world, as well as keeps our supporters up-to-date on our progress. It is also a great place to strengthen relationships and network with new people. Those interested in joining these meetings, can send an email to: [info@palestinature.org](mailto:info@palestinature.org).

## ANALYTICS

801,412

Facebook Page Reach

UP  
89%  
FROM 2021

22,304

Facebook Page Visits

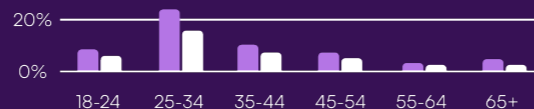
UP  
39.3%  
FROM 2021

15,083

Facebook Page Followers

1,801  
NEW LIKES

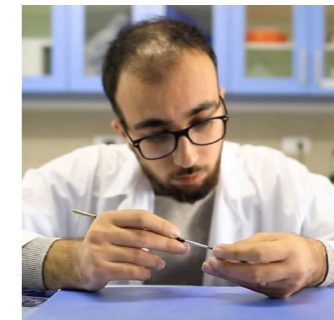
### Page Demographics (Age & Gender)



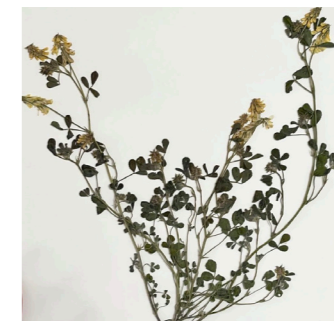
In our continued efforts to reach a wider audience, Prof. Qumsiyeh gave more than 170 talks virtually over the year to audiences globally and locally. They learn of issues like environmental justice, human rights and the important work of the Institute.

We developed many videos in 2022 to increase awareness on various topics. For example, under the EU funded project we developed four videos concerning the function of the Institute and its role in exploring, researching, documenting and preserving biodiversity, as well as research applications for assessment of fauna and flora species in Palestine. As part of our efforts for conserving our precious natural environment, we launched two videos where we transformed Palestine's NBSAP document (see earlier) into a relatable and accessible topic for the public. We also recorded and published workshops where we felt the public would benefit from watching, such as our Second Global Conference on Biodiversity and Human Diversity sessions, our 30 thematic NBSAP workshops, our monthly virtual volunteer/donor meetup and much more.

PIBS was also featured in two articles in the Bethlehem University magazine's Spring 2022 issue, one regarding a donation to the Institute from the Munib and Angela Masri Family Foundation (page 4), and another on our herbarium unit (page 15).



WATCH THE VIDEOS



READ THE ARTICLES



WEBSITE



FACEBOOK



INSTAGRAM





# Fundraising and Future Projects

## The following are projects for which we received funding:

Jan 2020 to Mar 2023, "Unity and Diversity in Nature and Society". Partnership of PIBS, Galilee Society and Palestinian Center for Rapprochement Between People. €849,610 funded by the EU Peacebuilding Initiative.

Jul 2021 to Jan 2023, "Consultancy to build the Sixth National CBD report and National Biodiversity Strategy and Action Plan (NBSAP) for Palestine". €195,745 funded by the Palestine Ministry of Finance and Environment Quality Authority.

Sept 2021 to Aug 2022, "Ethnobotany and High Value Agriculture for Sustainability". \$18,558 funded by the Representative Office of Switzerland.

Dec 2021 to May 2022, "Education and awareness for mainstreaming and public engagement in formulation of the new National Biodiversity Strategy and Action Plan (NBSAP). €7,142 funded by the Royal Belgian Institute of Natural Sciences (RBINS).

Oct 2021 to Sept 2025: Museum renovation and new exhibits. \$1.1 Million jointly funded by ASHA/USAID (ASHA) and Munib and Angela Masri Family Foundation

Jan 2021 to Dec 2024: Children's Educational Activities. €38,400 funded by Ms. Elena Probst.

We raised \$7,700 in 2021 from a crowdfunding campaign for a children's room at the Museum. This will be implemented in 2023-2025 as a part of the ASHA/USAID and Munib R Masri Foundation funded museum renovation project.

Mar 2022 to Oct 2023, Contract to provide various services and related outputs in the framework of the project "Environmental education and healthy nutrition promotion in Cremisan". \$21,050 funded by the Don Bosco Planning and Development Office.

Apr 2022 to Nov 2022, "Consultancy work on protected areas in Palestine." \$35,000 funded by the International Union for Conservation of Nature and the Critical Ecosystem Partnership Fund (IUCN/CEPF).

We raised \$10,500 during 2022 from a crowdfunding campaign for a better truck to tow our Mobile Education Unit but still need an additional \$40-60K.

May 2022, Peace garden. £3,000 funded by Mr. Rob Porteous. This will be implemented in 2023-2025 as a part of the ASHA/USAID and Munib R and Angela Masri Family Foundation funded museum renovation project.

While these grants are very important, they are what is called "restricted" and can only be used for their intended purposes. Unrestricted donations by supporters help the operating costs of PIBS and help us keep a core staff



when restricted grant funding cannot support salaries. In the calendar year 2022, we received almost **\$51,600 in individual (unrestricted) donations**, ten percent down from last year. We run the operation on a shoestring budget and use our resources efficiently. Thanks to our dedicated team and volunteers, we were able to accomplish more with less. Of course, the more support we have - financial and otherwise - the more opportunities we can create and the more people we influence. 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.

**Our plans for the coming year 2023 are ambitious.** These include introducing new bachelor programs in biodiversity and sustainability, and expanding our regional and global influence. We plan to renovate a building currently used as Sisters' convent to become truly worthy of being a national museum, which will include a reception area, at least eight exhibit areas, a peace garden, a cafeteria and a gift shop. Work on the design of the new museum facilities is progressing. Slated for completion in two years, the new facilities create an exhibition space of about 850 square meters. The costs of renovation and the exhibition installations are currently estimated at \$1.5 million. This means that in order to complete a fully functioning museum, we are still \$400,000 short.



SEE THE DESIGN OF OUR  
NEW MUSEUM FACILITIES

## OUR 2023 FOCUS

- Introduce a new bachelor program in biodiversity and sustainability at Bethlehem University
- Work on and raise funds for the renovation and expansion of Museum facilities
- Study and manage protected areas following their designations
- Continue to reach marginalized communities across the West Bank with our Mobile Educational Unit
- Deal with threats, especially climate change
- Increase regional and global collaboration with governmental entities, especially Environment Quality Authority

# PIBS Team, Volunteers, and Donors



2022 has been a year full of achievements, changes, and challenges for the PIBS family. We welcomed three new team members: Sara Khair (biologist and project assistant), Saleh Saad (gardener) and Dua'a Subhi (environmental consultant). We said goodbye to three team members: Elias Handal (who is pursuing his doctorate in Germany), Hanin Saliba, and Zohar Regev. We wish them all the best

in their future endeavors! 2022 is also a big milestone for several team members: Sara (wedding and enrolled in MSc Biotechnology program), Elias and Johanne (newborn), and Mohammed A. (MSc Biotechnology).

Congratulations to all!



Our team now consists of 11 members, with two of them being full time volunteers (Professor Mazin Qumsiyeh and Jessie Chang Qumsiyeh).

In 2022, Professor Qumsiyeh also served as an honorary advisor and board member of the ICCA Consortium and a member of the IUCN specialist plant group, served on the Palestine's National Climate Change Advisory Board, and is the point-person for the Bandung-Belgrade-Havana group, and on its scientific advisory board for the Rise of Asia Conference.

In 2022, we welcomed 87 volunteers (50 females and 37 males) from 17 countries (26 locals and 60 internationals) who contributed 14,800 volunteer hours to PIBS. As in every year, volunteers are talented and share their passion and skills, both on-site and from a distance. Some examples of the accomplishments that volunteers realized in a short period of time are: landscape design and interior design of the new building, graphic design and visualization of educational material, consultancy on leadership and organizational development within PIBS, various children's activities, proposal writing, manuscript reading and editing, plant conservation, herbarium specimens mounting, taxidermy, and taxonomy of both fauna and flora specimens. This tremendous amount of innovation occurred alongside daily duties to keep the grounds running smoothly and looking great. Volunteering at PIBS provides the opportunity to learn new skills, make a valuable contribution, meet new people, and learn about Palestinian culture.



**“For it is in giving that we receive.”** - Francis of Assisi

---

You can be a supporter of this project in many ways: volunteering ([palestinenature.org/volunteer](http://palestinenature.org/volunteer)), spreading the word, donating books and specimens, donating money ([palestinenature.org/donations](http://palestinenature.org/donations)), visiting us, joining our activities, following us on social media, as well as sharing the works of this Institute.

At PIBS, we also welcome visiting researchers, interns, and all who want to join us to be students of knowledge and contributors to a more livable world.



## Our Vision

**Sustainable human and natural communities:** Empower responsible human interactions with all components of our environment to promote a sustainable ecosystem.

## Our Mission

**Research, educate about, and conserve our natural world, culture and heritage and promote responsible human interactions with our environment.**

**Address:** Mar Andrea Building, Al-Karkafa, Bethlehem, Palestine

**Email:** [info@palestinenature.org](mailto:info@palestinenature.org)

**Website:** [www.palestinenature.org](http://www.palestinenature.org)

**PDF Version:** [www.palestinenature.org/annual-reports/](http://www.palestinenature.org/annual-reports/)

**Tel/Fax:** +970 (02) 277-3553