



THE HEBREW
UNIVERSITY
OF JERUSALEM

National Natural History Collections



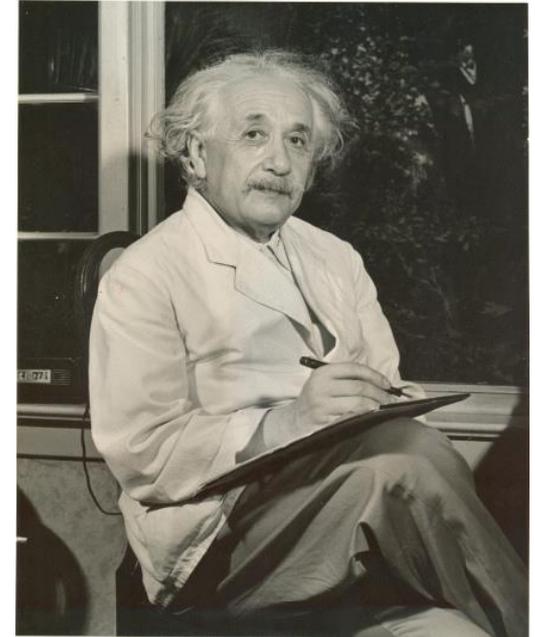
וספי הטבע
הלאומיים
האוניברסיטה העברית בירושלים
National Natural History Collections
The Hebrew University of Jerusalem

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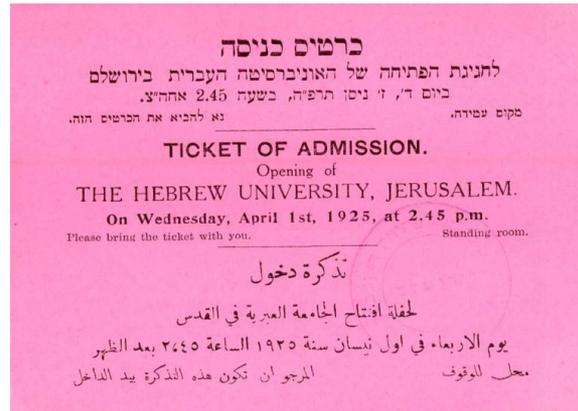
The Hebrew University of Jerusalem

Founded in 1918 by visionaries:

A. Einstein, S. Freud, M. Buber and H. Weizmann.



Opened in 1925



➤ Stresses excellence and encourages multi-disciplinary research and activities.

➤ Bridge between academic research and its social and industrial applications.

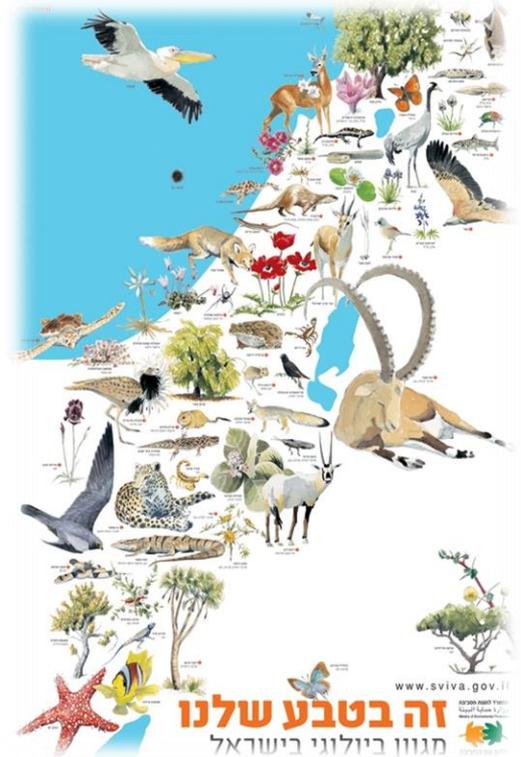
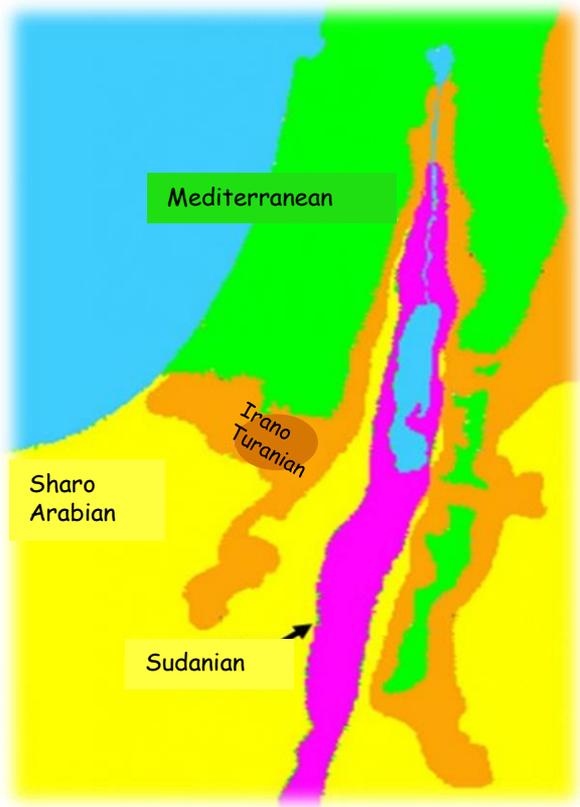
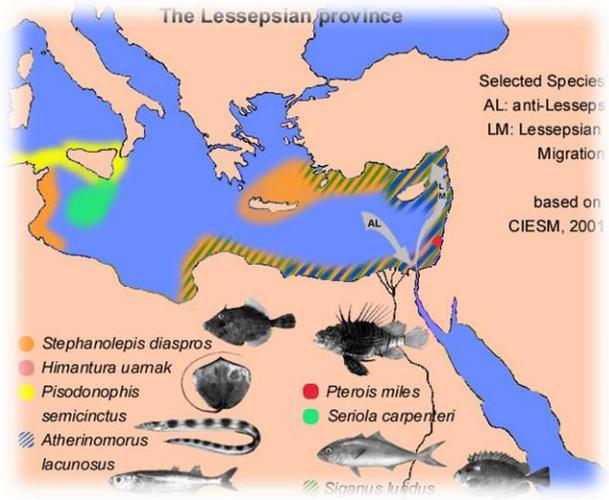
The National Natural History Collections of The Hebrew University of Jerusalem

Warburg (1920) - Herbarium

Aharoni, Eig and Bodenheimer (1928) - Natural collections

Developed extremely important concepts on
regional biogeography.

Contain a unique diverse collection of flora and fauna of the Middle East and its adjacent regions.



Biogeographical diversity

National Natural History Collections
المجموعات القومية للطبيعة
The Hebrew University of Jerusalem האוניברסיטה העברית בירושלים



Safe repository and reliable baseline for the biota of the southern Levant in the wake of unprecedented global environment changes.

Number of Primary types is ca. 7,660, but species new to science are continually discovered

Present markers and milestones for exploring the continuity of evolutionary biological change and diversity of the biome.

Early human occupation - out of Africa

Unique exclusive scientific libraries and archives.

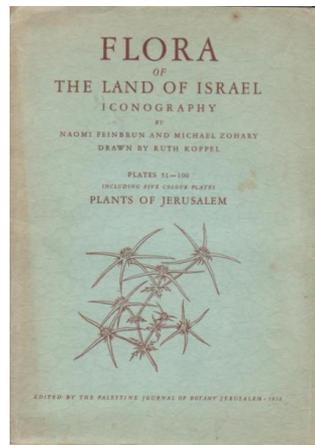


In addition the NNHC-HUJI serve also as

- Archive of Israel culture heritage
- Subject of scientific research (collection-based projects):
 - Taxonomy and systematics
 - Evolution
 - Ecology
 - Biodiversity
 - Conservation (conservation genetics)
 - Wildlife forensics
 - Emergence and re-emergence of pathogens
 - Climate
- Education and Public outreach

The Israel National Herbarium

- The biggest plant collection in the Middle East, extensively depicting the flora of the region
- Contains ~2 million items
- 3,500 type specimens
- Sub-collections: ethnobotanical, moss, algae, wood, seeds and phytopathogenic fungi.
- Botanical library, Botanic illustrations collection and historical archive.



Hula Painted Frog (*Latonia nigriventer*)

Multidisciplinary research

- 1940 Type specimen,] Hula valley.
- 1955 one specimen]
- 1996 Declared extinct by IUCN
- 2011 rediscovered by INPA ranger



Morphology:

Micro-CT of type and fossil specimens

Genetics:

Molecular identification



Revive the "extinct" genus *Latonia*
(instead of *Discoglossus*)



Conservation of Scientific Collections

- ❖ Preventive conservation issues: environmental monitoring, storage improvement and maintenance policies.
- ❖ Direct treatment of objects and collections including *in situ* conservation work on palaeontological, archaeozoological and zoological specimens (historical and recent)
- ❖ Research to improve conservation methodologies in natural collections



PVA cross-linked with borax



Erq el Ahmar (2-1.5 million years ago)

Israel Arachnid National Collection - Dr. Gavish-Regev

Taxonomy and systematics



Artema nephilit sp. nov.

Charinus israelensis sp. nov.



European Journal of Taxonomy 376: 1–57

<https://doi.org/10.5852/ejt.2017.376>



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Contribution to the Community

Conservation

The Red List - Endangered species Plants and Animals

The Plant Gene Bank

Ecological disaster - environmental pollution

Biodiversity - endangered species

Wildlife (Non-human) Forensic

Ministry of Agriculture

Ministry of Health

Consultation to various museums and collections

Education and Public outreach

University courses

Professional internships

High school outstanding students

Students

Teachers



Education and Public outreach

Monthly activities
Open day



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On-going procedures

Cataloging, Imaging & Digitizing



Standardized natural history collections for specimen based research



Biodiversity & conservation

Procedures in specimen conservation as a tool to ensure long term sustainability of natural history collections

תשאול המאגר

עמוד זה מאפשר תשאול של מאגר פריטי האוספים.
להנחיות נא לחצו כאן.

Id:

Collection

Taxonomy:

Location:

Collection year range:
1840 - 2018

Images:
 Only items with image

Sort by:

 Descending

Show **Entries**

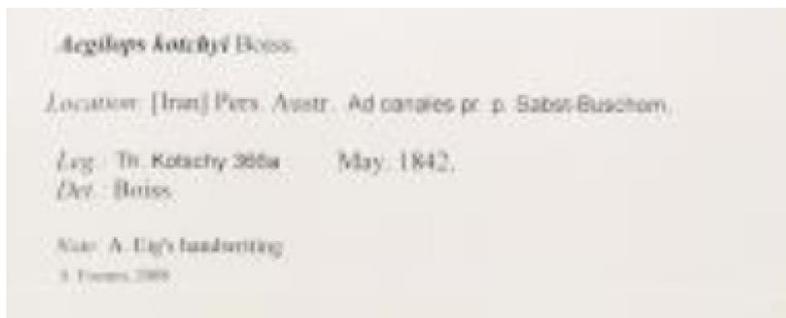
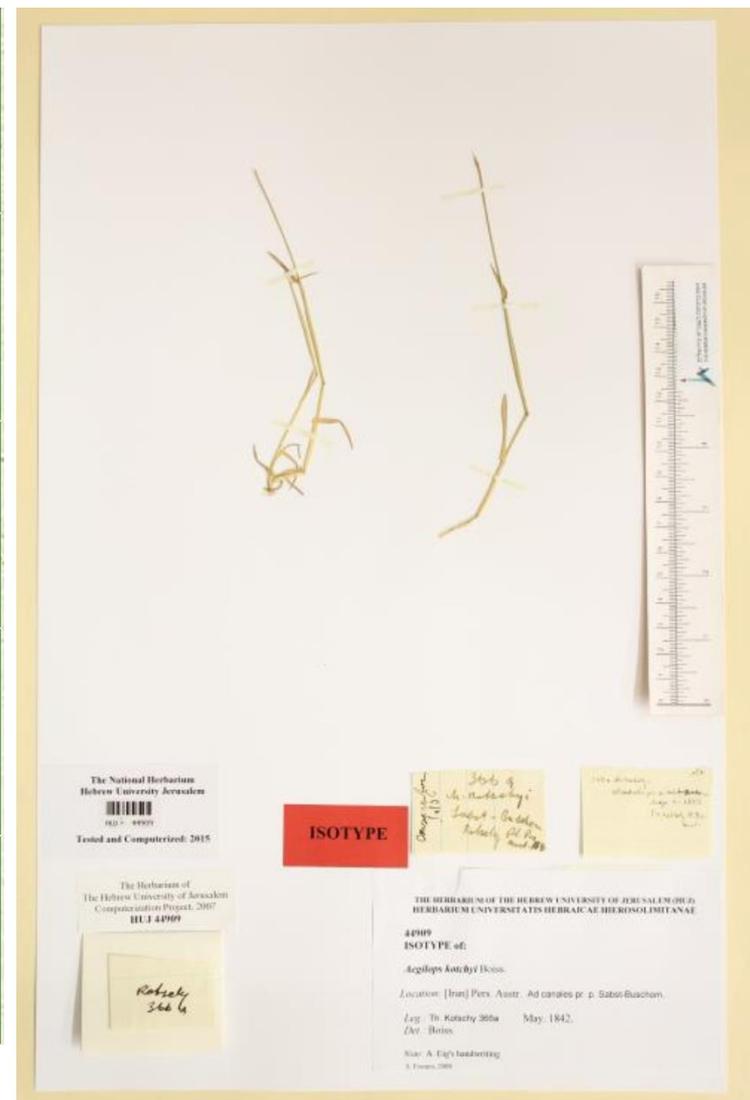
Name	ID	Locality	Country	Image
<i>Aaronsohnia factorovskyi</i> Warb. & Eig	HUJH... 1267...	Enot Qane (En Ghuweir)	Israel	
<i>Abutilon fruticosum</i> Guill. & Perr.	HUJH... 1504...	En Gedi oasis, Dead Sea	Israel	
<i>Abutilon theophrasti</i> Medik.	HUJH... 1265...	Revadim, 15 km. E of Ashdod	Israel	
<i>Acacia nilotica</i> (L.) Delile	HUJH... 1265...	Rishe	Jordan	
<i>Acacia raddiana</i> Savi	HUJH... 1504...	Wadi David	Israel	

Showing 1 to 5 of 2245 total *type specimen [Download results as Excel File](#)

Cataloging, Imaging & Digitizing

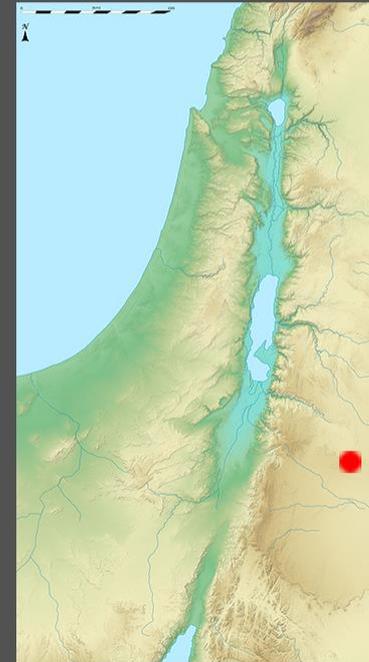


Aegilops kotschyj Boiss.*	HUJH... 44909	Pers. Austr. Ad canales pr. p. Sabst-Buschom	Iran	
Aegilops kotschyj Boiss.*	HUJH... 44910	Pers. Austr. Ad canales pr. p. Sabst-Buschom	Iran	
Aegilops kotschyj Boiss.	HUJH... 1239...	sin loco	Iran	
Aegilops kotschyj Boiss.	HUJH... 131661	Har Ramon	Israel	
Aegilops kotschyj var. brachyathera Eig*	HUJH... 29030	Edom, about 40 km. S. of Ma'an Hills	Jordan	





Tetrax tetrax - חובה קטנה
Collection Date: 22/12/1927
Location: Wadi Fura, Jordan Plains
Collector: Israel Aharoni
Av-186



360 °Photography enhanced

- *Alaemon alaudipes* - <https://houspare.sirv.com/Spins/ALEMON/ALEMON.spin>
- *Alauda arvensis* - <https://houspare.sirv.com/Spins/Alauda/Spins.spin>



998,387 Records

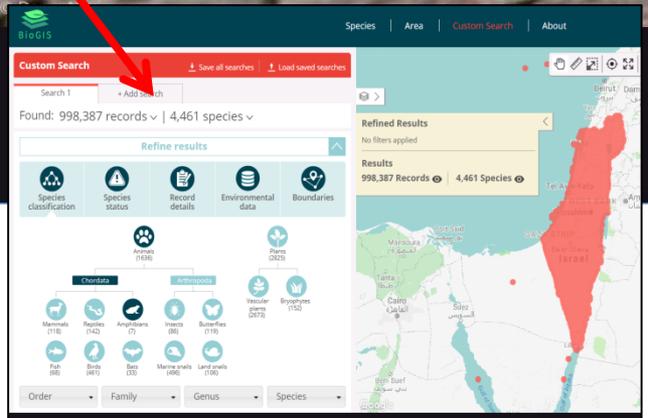
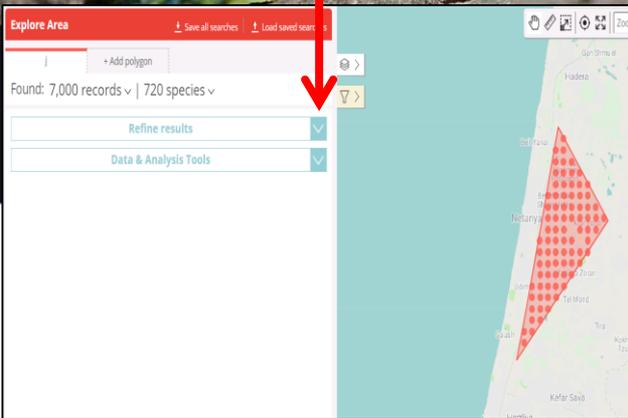
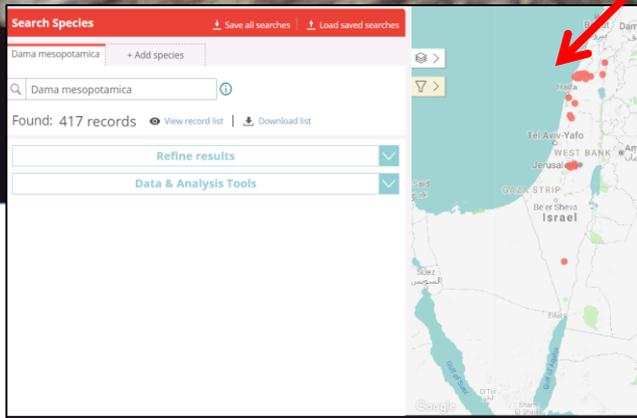
Explore Israel's diversity of animals & plants with simple and advanced GIS tools



Search Species

Explore an Area

Custom Search



BioGIS system allows professionals and the public to explore and analyze Israel's biodiversity.
BioGIS goal is to integrate existing information on the composition and geographical distribution of the flora and fauna of Israel in a unified open-access Geographical Information System

Biodiversity and Conservation

Reconstruction of present and ancient ecosystems using:

Archaeology

Palaeontology

Genetics (aDNA)

Morphology

Micro-biomes

Diseases

Bio-molecules

Isotopes

Ethnology

Modeling

Structure of biodiversity in different environmental setting including past-present human factor in this settings.

Required for developing future tools for sustainability in multivariate environmental background.

National and International collaborations

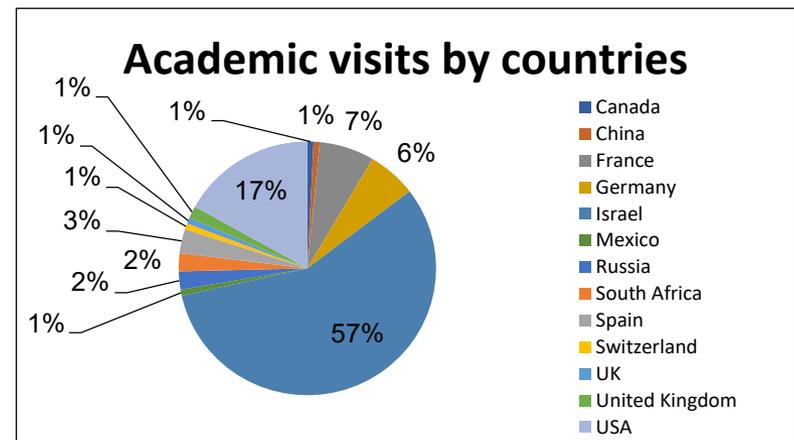
National

- Israel Nature and Park Authority
- Israel Antiquities Authority
- Ministry of Agriculture
- Israel Cave Research Center
- Society for the Protection of Nature in Israel
- Israeli Police
- The Jerusalem zoo
- The Botanical Gardens
- Jewish National Fund
- The Geological Survey of Israel
- Ministry of Health

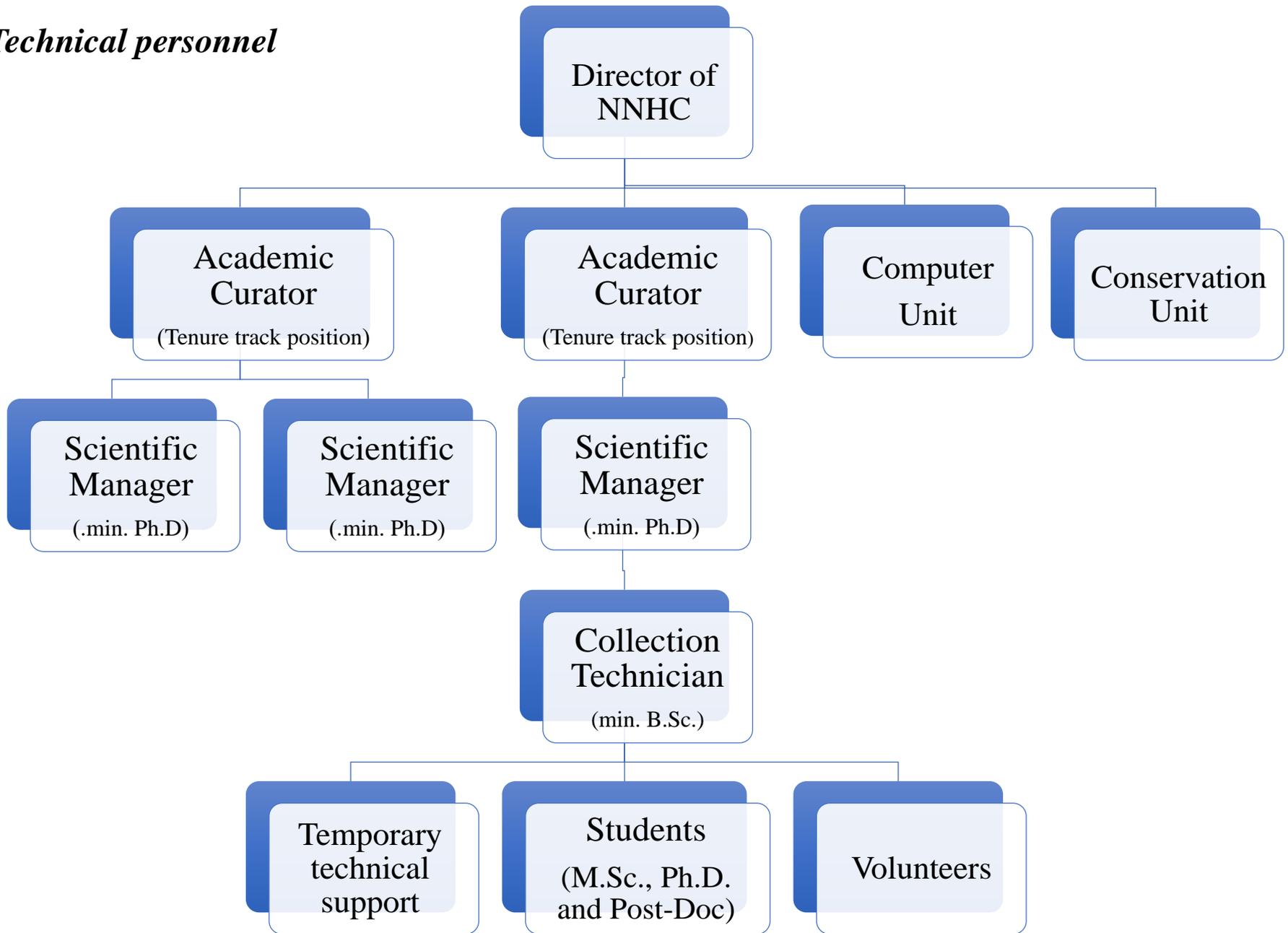
National and International collaborations

International

- CETAF Consortium of European Taxonomic Facilities
- HUI Herbarium is listed in Index Herbariorum and the Organization of Phyto-Taxonomic Investigation in the Mediterranean Area (OPTIMA).
- Synthesys+ and DissCo
- COST "Mobilising Data, Policies and Experts in Scientific Collections" (MOBILISE) CA17106
- Visitors



Technical personnel



Recruit Scientific Managers as Research Associates/Senior Research Associates.

The Israel Academy of Sciences model supporting National Natural History Collections in Israel

Botanical Gardens: recognized as Natural/Biological collections worldwide.

Haasiana: Converting to a peer-reviewed journal (e-journal) representing the NNHC in Israel with the support of the Israel Academy of Sciences.

National Center for conservation and documentation in 3D of seeds and fruits: Collaborative project initiated by Prof. Udi Wise Bar-Ilan University

Infrastructure

Support repairing the infrastructure at the NNHC-HUJI (as recommended by the Experts Committee) due to deteriorating conditions since 2001.

The Herbarium specimens are stored in wooden cabinets!

The Israel Academy of Sciences model supporting National Natural History Collections in Israel

Questioning the Scientific Steering Committee

- Its goals and governance
- The way its members are elected
- The appointment term of Steering Committee members
- Election of the committee Chair
- The way decisions are taken.

We recommend having a public representative in the committee.

- Guidelines concerning post-doctoral fellowship support - prerequisite are being changed constantly.
- The supporting model was changed, eliminating support for academic associate curators without any notice!

Thank you for all NNHC-HUJ
members
for making the success
possible

