Avi Uzan
Aqueous Habitats Ecologist
Division of Science & Conservation - Israel Nature and Parks Authority
3 Am Ve'Olamo St, Givat Shaul Jerusalem 95463, Israel
Tel.: +972-2-5006249
Fax: +972-2-6529235
Mobile: 053-7762221
aviuzan@gmail.com

Education

- **2000 -2002**
  - Faculty of Life Science, Bar-Ilan University, Ramat-Gan, Israel.
    M.Sc. in Environmental Bacteriology, Thesis: "The importance of the H_2O_2 scavenging Enzymes Thioredoxin-Peroxidas and Catalase-Peroxidase in cyanobacterium *Synechococcus* PCC 7942 under oxidative stress inducing growth conditions" Advisor Dr. Rakefet Schwartz.
- **1997- 2000**
  - School of marine sciences, Hebrew University, Jerusalem, Israel.
    B.Sc. in Environmental sciences

Positions

- **2005-present**
  - Aqueous Habitats Ecologist, Science division, Israel Nature & Parks Authority
- **2020**
  - Teacher Part-Time at the Technion, faculty of Architecture and Town Planning
- **2006-2007**
  - School of marine sciences, Ruppin academic center. Teaching assistant: Introduction to Ecology.

- **2000-2002**
    - Faculty of Life Sciences, the Bar-Ilan University, Ramat-Gan, Israel
      Teaching assistant: Ecology Laboratory

Leading projects

- Rehabilitation of a coastal marsh and estuary “Dif’le”. The project is a complex of biodiversity improvement through fishery and water usage mitigation. The project is also a part of a European consortium (Green deal) “Rest-Coast” that is dedicated to the restoration of river-coast environments, risk reduction and the creation of carbon sinks. – Ongoing.
- Rehabilitation of Ei'not Gibton nature reserve – Water regime, geohydrology, invasive species, engineering.
- Na'aman stream reconstruction – reconstruction of the British mandate diverted na'aman canal to a natural shape designed stream. Geomorphology, hydrology, eco-hydrology
- Reestablishment of coastal marsh near Soreq river mouth drained by the British mandate. Geohydrology, botany, geomorphology
- Rehabilitation of the Kibutzim stream in Beit-Shean valley. Culverts design to accommodate water flow, ecological connectivity and recreation. Morphological reshaping of stream to enhance biodiversity.
- Rehabilitation of "Ahu Gonen" a small nature reserve that was drained. Resuming natural hydro period, creating habitat for fish, which are providing for new family of otters, an endangered species.
- Rehabilitation of “Zeita marsh”, a small nature reserve with an impaired water regime and low habitat heterogeneity. Reshaping its bathymetry and a transition from seasonal to perennial hydroperiod.

Membership in committee, boards and councils

2005- Present

- Committee for ruling of drainage operations, Israel Ministry of agriculture
- Committee for ruling plans for water abstraction, Israel Water authority
- Committee for ruling plans for water/effluents supply, Israel Water authority
-

2017-present

— Committee for issuing discharge permits of effluents to the environment, Water authority

2020-present

— Member of an editorial board of a National master plan designated for runoff and drainage under climate change and high development scenarios.

2020-present

— Member of an inter-regulators committee aimed to deal with the increasing discharge of effluents to the environment.

2020-present

— Board of directors of “AGMA”, an NGO supported by government aimed to create professional community, gather, create and disseminate knowledge regarding streams, runoff, and nature-based solutions in the era of climate change and surging development.

2015-2017

— Member of the National council of the Israeli project for assessment of ecosystem services.

2023-2025

— Member of the leading group of the National strategic plan for the rehabilitation and reservation of Israel's streams.

2023-2025

— Member of the editorial committee for national plan for water and streams including sub committees for amendments.

Research Presentations and delegations

- **2021-present**

  — Pilot site leader at “Rest-coast”, a consortium of 9 European states collaborating on restoring river-coast habitats. The projects are pilots or demonstration projects. We are set to aid the upscale and outscale of our projects in terms of governance, funding, financing and hands on restoration.

- **2016-2020**

  — Member of EU COST action intermittent and ephemeral streams.

- **2011**

  — The conservation and rehabilitation of Israel's stream and aquatic habitats, Nature & Parks Authority policy**.** The 36th. Annual Meeting of the Israeli society for ecology and environmental science, Megido, Israel.

- **2010**

  — Poster "The eradication of the invasive crayfish *Procambarus clarkii* **.** The 38th. Annual Meeting of the Israeli society for ecology and environmental science, Be'er sheva, Israel.

- **2006**

  — Environmental Flows: Existing Methodology and the Situation in Israel.

  The 34th. Annual Meeting of the Israeli Society for Ecology and Environmental Science, Haifa, Israel.

  — Participation in a workshop on "cross boundary river management", Amman, Jordan, held by Arava institute.

- **2005**

  — Participation in a reciprocal delegation on stream rehabilitation and water resource management, Australia, Melbourne the Yara river & Tel-Aviv Israel, the Yarqon stream.

Membership in Scientific Organizations

- The Israeli society for ecology and environmental sciences.

Major Research/work Interests

- Stream ecology, Land use effects on stream ecology, land use management, agro-ecology, Characterization and classification of Mediterranean streams, wetlands and other aqueous habitats. Aqueous habitats rehabilitation, stream management, natural flow schemes, environmental governance.

Selected Publications

- **2025** - Contributed the chapter for **Wetlands of Israel** in**;** Pullaiah, Thammineni**.**

  Wetlands of Tropical and Subtropical Asia and Africa.

  https://doi.org/10.1002/9781394235278.ch6

- **2024**

  — **Unravelling large-scale patterns and drivers of biodiversity in dry rivers:** Nature communications**,** 8.2024. https://doi.org/10.1038/s41467-024-50873-1

- **2021**

  — Guest Editor of a special edition about Israel's streams of a peer reviewed journal "Ecology and environment" in Hebrew.

- **2019**

  — **An update of the current status of aquatic habitats in Israel;** Israeli water magazine "Handasat Maim" 121, 2019

- **2015**

  — **Poleg marshes come alive. On the conflict between agriculture and nature conservation, and a pathway to resolution.** Ecology & environment, a magazine for science and environmental policy, the Israeli society for ecology and environment, April 2015,1

- **2011**

  — **Integrative and holistic management of Israel streams; Policy recommendations**. (Together with Prof. Ezra sadan, Ruth lowenthal, Dr. Avner kesler, Eran shneydor, Iris han, Amit shapira). 'de'she' Institute, SPNI's Open Landscape Institute.

- **2010**

  — **Managing the Soreq stream in alternative manner, a hydrological, economical, ecological examination**. (Together with Dr. Avner Kessler and Gil Guttmann). The society for the protection of nature in Israel (SPNI).

- **2010**

— "**The conservation and rehabilitation of Israel's stream and aquatic habitats, Nature & Parks Authority policy**. Science division publications.

- **2007**

— "**An ecologic solution? Regarding the idea of transform drainage authorities to stream rehabilitators**" Maim Ve'hashkaia, (Professional)

- **2006**

— **"Nature's right for water"**, Teva Hadvarim, march 2006, (Popular)

- **2004**

— **The Yarqon: review, assessment, and recommendation for rehabilitation.** Cooperation with Prof. Avital Gasith and Yaron Herskovits, Tel-Aviv University.

- **2003**

— **"Oxidative Stress in Synechococcus sp. Strain PCC 7942: Various Mechanisms for H_2O_2 Detoxification with Different Physiological Roles"**, Journal of Bacteriology, June 2003, p. 3654-3660. (Together with R. Schwartz, A. Perelman, D. Hacohen)