



Research Infrastructure and Open Facilities

R/V Sam Rothberg

A 16m long research catamaran. Twin engines allow max cruising speed of 10 knots. The ship is equipped with state-of-the-art oceanographic instruments and sensors, including a recording sonar, a navigation system, a 1 ton winch with 2 km conductive wire, CTD, a rosette with 11 Niskin bottles, an opening-closing plankton net (MOCNESS), a piston and multi-corers for sediment samples, sediment traps, a water-filtration manifold, and microscopes.

Boats

Two 7m long skiffs built to carry divers and light operations such as water sampling at single depths, plankton tows, light mooring deployment, etc.

The Heidi Rothberg Pier

A 40m long pier equipped with two cranes, boat and ship loading platform, and a sensor tower measuring a host of meteorological variables. The pier is also used as an entry point for divers and as an above-reef terminal for cabled in situ instruments.



Diving Center

Highly professional dive center for regular air, Nitrox and Trimix dives, regular dives, technical dives, standard regulators and re-breathers. A high-pressure compressor, O₂/He gas blending system; 18 SCUBA sets, 3 sets of open circuit technical diving equipment and 4 re-breathers; 2 sets for underwater speech communication with full masks.

Sea-water supply – a heavy-duty pumping system delivers 60 m³/hr from 30m depth.



Visitor Laboratories

A separate room, ample bench space in the teaching laboratory.

On-site Dorms (“Dor House”)

Eight rooms, furnished, air-conditioned, kitchens for student use, dining space; max occupancy 32.

Library

Holding the most comprehensive reference collection of marine science in Israel, with over 1000 books and a large collection of print periodicals. The library has access to MALMAD (Israel Center for Digital Information Services), ULS (Union List of Serials in Israeli Libraries) and the ULE (Union List of EJournal) which provide full-text services to numerous electronic journals.

Open water system

Running sea water used for experiments with live corals and other marine animals.

Temperature and pH controlled aquaria

Experimental seawater pools - two large, outdoor pools, 12 m³ (4 m diameter, 1 m deep) and 38 m³ (4 m diameter, 3 m high) in volume, allow experiments with large animals and/or use of large sensors.

Other facilities

- Temperature-controlled rooms (2) – for cultures of bacteria and plankton
- 2 clean labs
- Computer Room (22 desktop computers)
- Extensive computing, networked system
- A complete plankton laboratory- NIKON compound microscopes, phase-contrast microscopes, an inverted phase-contrast microscope, an epifluorescent microscope and dissecting scopes equipped with trinocular heads for photography, cameras, fiber optics light source, counting trays, size fractionation nets, Folsom splitter, stemple pipettes, Utermoel Sedimentation Chamber
- Epifluorescence dissecting scope
- Confocal inverted epifluorescent microscope (Nikon)
- Rotating wheel for plankton incubations
- Horizontal and vertical plankton nets, light traps, flowmeters
- Current meters – Acoustic Doppler Current Profilers (ADCP) (2), electromagnetic current meter S4 (2)
- Underwater meter system (Unisense)
- Aquadopp profiler (Nortek AS)
- Water filtration systems
- Peristaltic pumps
- A molecular biology laboratory
- Denaturing Gradient Gel Electrophoresis (DGGE)
- Plate Reader (Multiskan Spectrum)
- PCR, rt-PCR
- Standard lab facilities (autoclave, centrifuges, ventilation hoods, incubators, drying ovens, furnaces, shakers, baths, analytical and semi-analytical balances, pH, oxygen and temperature meters, homogenizers)
- Fluorometer (Trilogy, Turner-Design)
- Spectrophotometer
- Bench-top flumes
- Refrigerators and deep freezers (-20 and -80°C)
- Freeze-drying lyophilizer
- Sediment sieve shaker + fractionation sieves
- A video tele-conference system
- Underwater still, GoPro and video cameras

- Underwater online camera
- Diving regular and UV torches
- Open wheel measuring tapes
- A radiation laboratory (beta counter)