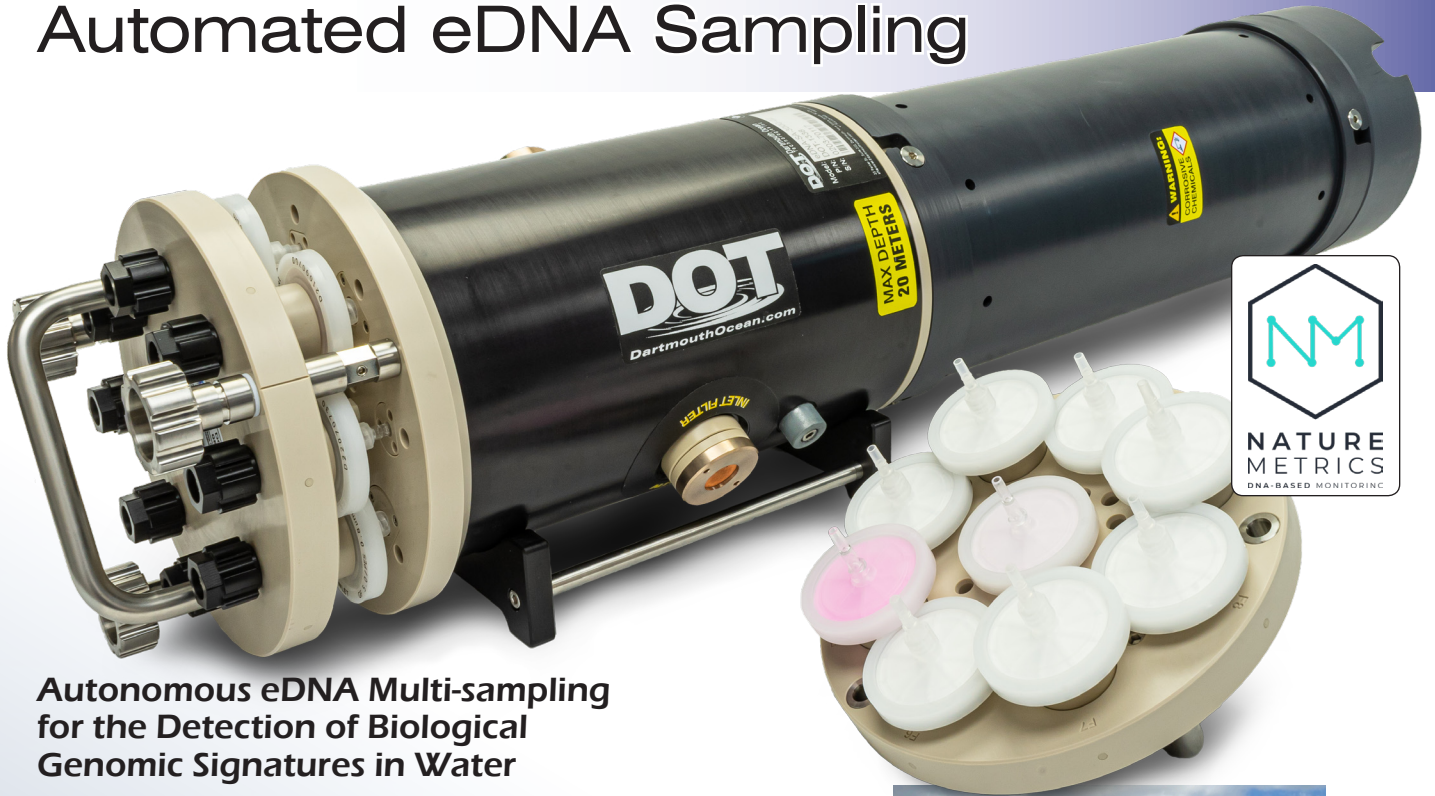




# DOT-NM Sampler

## Automated eDNA Sampling



### Autonomous eDNA Multi-sampling for the Detection of Biological Genomic Signatures in Water

#### Features at a Glance:

- Automatic operation according to a pre-configured mission profile
- Fluidic architecture reduces reagent usage and facilitates storage of waste products for later disposal
- Sample preservation via RNAIater enables long-term, unsupervised deployment
- Multiple sample collection, storage and transport with integrated filter cassette
- Sample filter material based on NatureMetrics Standards
- Trigger sampling with 3rd-party sensors via serial data connection
- Compact design allows for deployment from a variety of vessels and platforms



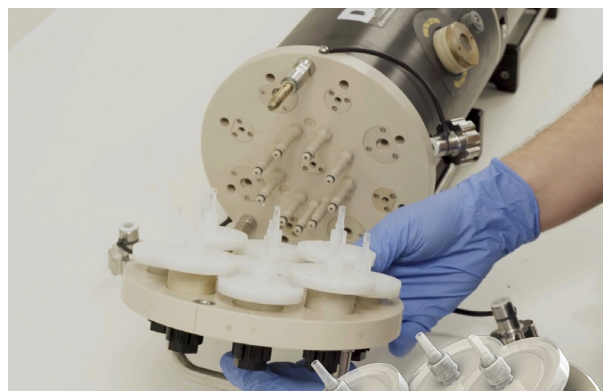
# DOT-NM Sampler - Automated eDNA Sampling

## Multi-sample eDNA Collection Made Easy

eDNA sampling is a valuable tool for studying both prokaryotic and eukaryotic biodiversity in the water column. Dartmouth Ocean Technologies has developed a portable, convenient solution for use in many data collection scenarios.

The programmable nature of the instrument allows for increased sampling resolution over long periods of time – ideal for time series studies.

Filters are sent to NatureMetrics labs for extraction and sequencing. The DOT-NM Sampler can hold enough chemistry to collect 27 discrete samples (3X full cassettes) without changing reagent bags. The integrated multi-filter cassette makes transporting the samples more convenient.



Filter Cassette Removal



## Environmental Monitoring

- Commissioning and decommissioning of various coastal and offshore work sites
  - Oil and Gas
  - Wind farms
  - Aquaculture
- Monitoring the environment for specific organisms of interest
  - Harmful algae (ie. Alexandrium sp.)
  - Parasites or pathogens
  - Indicator species
  - Biodiversity surveys

## Specifications

|   |  |  |  |  |
|---|--|--|--|--|
| <b>Depth Rating:</b>                          | 20 m, 200 m or 3000 m                                |  | <b>Reagents:</b><br>(volumes per filter)                         | RNAlater (9 mL)<br>Milli-Q (18 mL)<br>5% HCl (16 mL)   |
| <b>Weight:</b><br>- In Air<br>- In Salt Water | Standard:<br>10.2 kg (22.4 lbs)<br>0.43 kg (0.9 lbs) | Deep Water:<br>14.4 kg (31.7 lbs)<br>4.21 kg (9.3 lbs)                 | <b>Sample Filters:</b><br>- Size:<br>- Pore Size:<br>- Material: | (defaults)<br>45 mm<br>0.8 µm<br>Polyethersulfone (PES) w/ 5 µm GF pre-filter                    |
| <b>Dimensions:</b><br>- Diameter<br>- Length  | Standard:<br>167 mm (6.6 in)<br>800 mm (31.5 in)     | Deep Water***:<br>167 mm (6.6 in)<br>800 mm (31.5 in)<br>+ compensator | <b>Intake Filter:</b>  | 35 µm PEEK (default)   |
| <b>Supply Voltage:</b>                        | 7VDC (Battery) or 12 - 24VDC                         |  | <b>Sampling Rate:</b>  | Up to 1 L per hour**   |
| <b>Power Draw:</b>                            | 3W (average), 7W (peak)                              |  | <b>Sample Volume:</b>  | Tested for 100 - 5000 ml (user-definable)**  |
| <b>Data Output:</b>                           | RS232  |  | <b>Options:</b>  | Pressure compensator<br>External battery case (Lithium)<br>Deployment-specific mounting brackets |

\* Specifications subject to change \*\*Dependent on environmental conditions \*\*\*Dimensions are for 20 metre version only, 200 & 3000 metre requires add-on component



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