eDNA Sampler

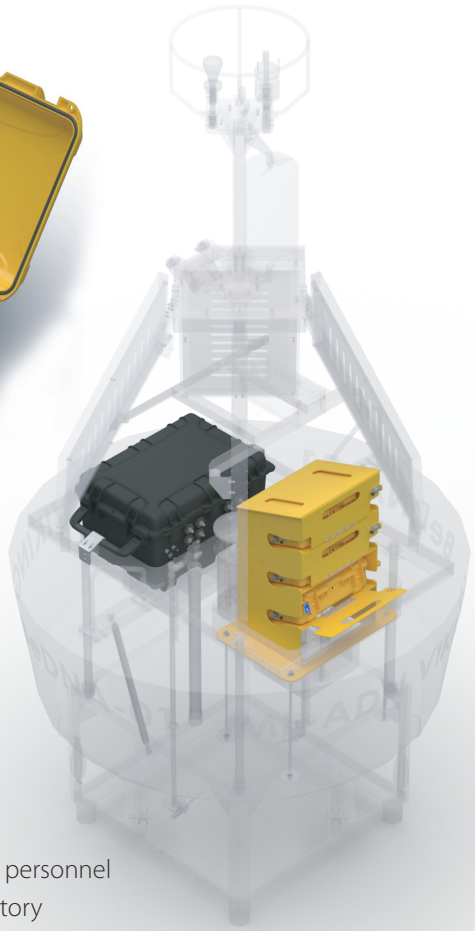
Autonomous Environmental DNA (eDNA) Sampler

eDNA sampling in remote areas made easy

Environmental DNA (eDNA) sampling is a powerful technique for monitoring biodiversity by analyzing DNA molecules shed by organisms into aquatic environments. The Autonomous eDNA Sampler is a fully automated system designed for multi-species surveillance, with long-term sample preservation capabilities in a variety of structures and platforms.

Application Areas :

- Marine mammals
- Endangered species
- Invasive species
- Commercial fishing
- Biodiversity monitoring



Unique System Features :

Long Deployments

- Collects up to 96 samples, preserved for several months autonomously
- Cellular/Satellite telemetry provides remote access to status, configuration and metadata

Large Sample Volume

- Sampling filters collect DNA from larger water volumes, providing higher sensitivity

Field Servicing

- Easy-to-replace sample holder cases can be retrieved with minimal training by non-technical personnel
- Sealable, rugged sample holder cases to ensure sample integrity transportation to the laboratory

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Specifications:

Specification	Value
Maximum Filters Quantity	96
Sampling Rate	User-definable/programmed
Sample Volume	2L (configurable)
Filter Dimension	Dia. 25 mm / Por. 1.5 µm
Preservation Method	Automated sample drying, chemical
Deployment Duration	Continuous in Ice-free conditions Up to 3 months between sample retrievals
Power Supply	12VDC to 24VDC

Key Features :

Unattended Operation

- Autonomously powered system
- Automated sample treatment for up to 3 months preservation
- Recording of sample preservation conditions

Repeatable Sampling Method

- Autonomous sampling and preservation sequence
- Sampling metadata recording

Resistance to Cross-contamination

- Laboratory-validated cross contamination control
- Negative sample control

Biofouling Protection

- UV-based system ensures reliable, long-term data collection

Versatility

- Additional sensors can be mounted on demand
- Compatible with most oceanographic instruments