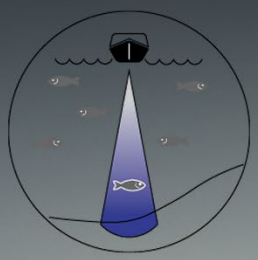
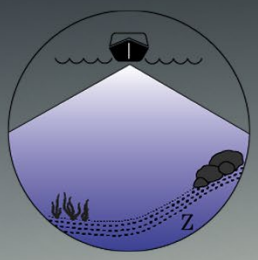
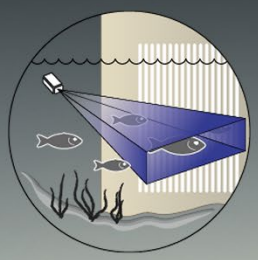
Our Services:

- Hydroacoustic data collection and processing.
- Hi-resolution multibeam bathymetry surveys.
- Impingement monitoring.
- Integrated sonar and biotelemetry systems.
- Aquatic habitat mapping.
- ARIS & DIDSON data processing and fish passage assessment.
- Predator and prey fish abundance estimates.
- Environmental Effects Monitoring.

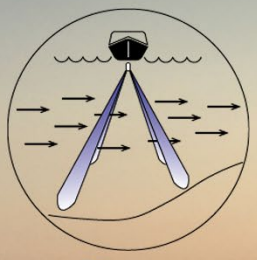
Milne Technologies


Fisheries Acoustics


Multibeam Bathymetry

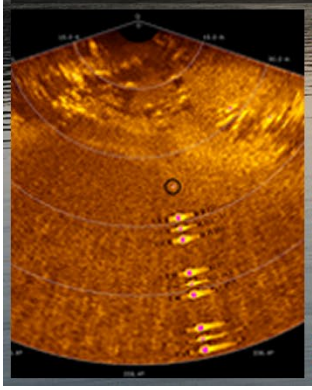

Impingement Monitoring

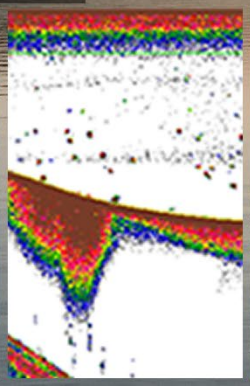

Integrated Sonar and Biotelemetry

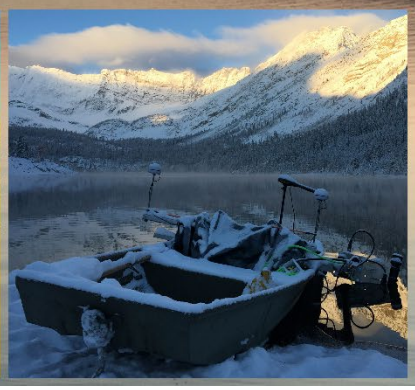

Flow Velocity

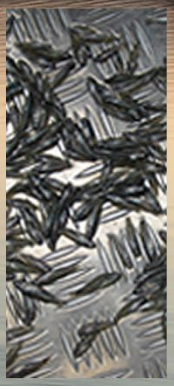

Acoustic Data Processing

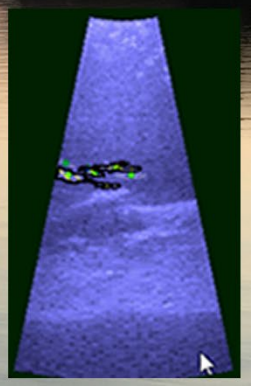

Habitat and SAV Mapping











Milne Technologies provides hydroacoustic data consulting, GIS mapping services, and analyses of fisheries and fish habitat data. In operation since 2004, our company specializes in hydroacoustic (multi-beam imaging and profiling, split-beam echo-sounder, integrated biotelemetry and ADCP) data collection and analysis services to support the energy, mining, municipal infrastructure and natural resource sectors.

We support data sources from all major providers of sonar and echo-sounder equipment and our company maintains a close relationship with the manufacturers to ensure our clients have access to the most advanced technology in the field.

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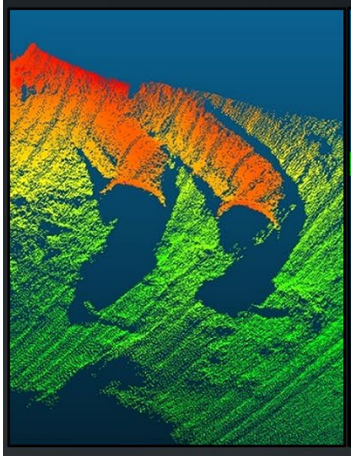
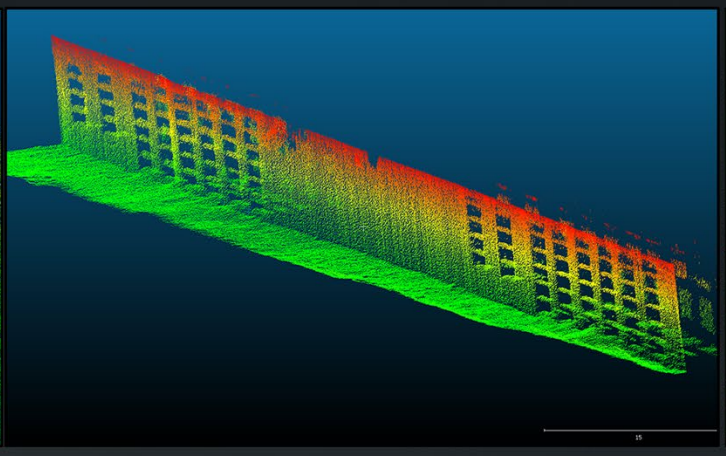
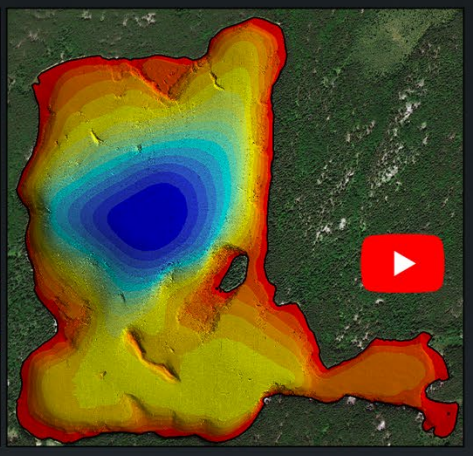
Multibeam Sonar Bathymetry and Scour/Deposition Detection



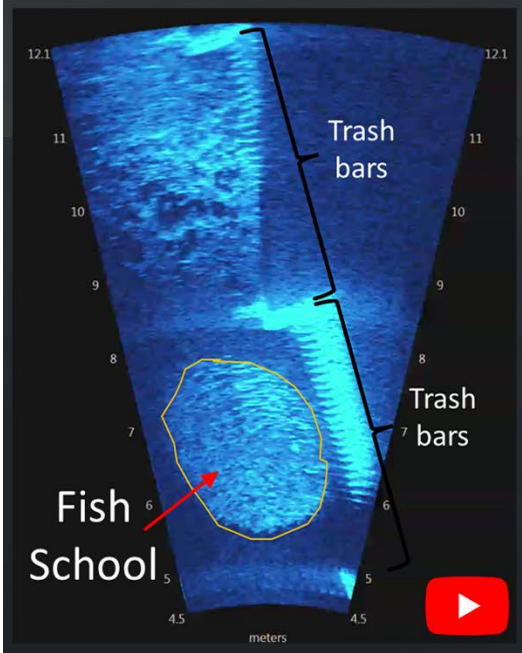
Underwater infrastructure inspection.



Mussel shell accumulation mapping within the cooling-water intake forebay of a nuclear generating station.

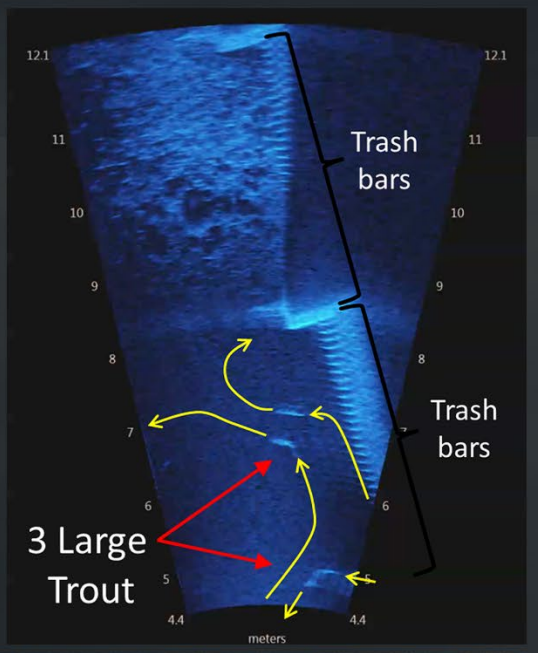


Lake, reservoir & riverine bathymetry, and fish habitat mapping.



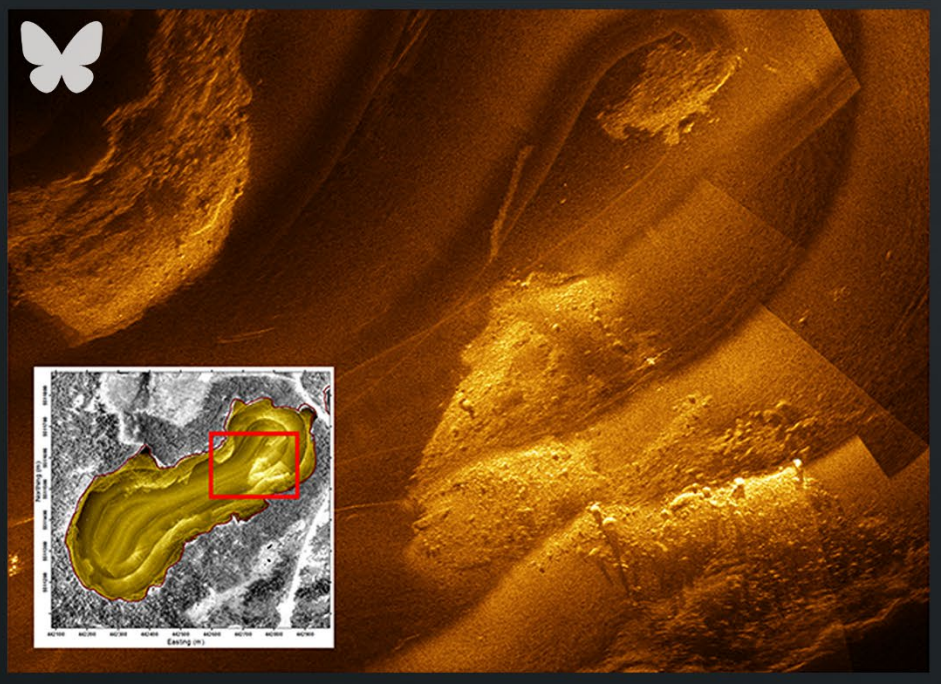
Fish Impingement Monitoring

- Sonar imaging for "video-like" clarity of fish activity and behaviour.
- Fish counts, swimming speed and direction.
- Operates day & night and in high turbidity. No light source required.
- Continuous logging and automated post-processing for long-term monitoring projects.
- Compliant with EPA Clean Water Act § 316(b) monitoring requirements.



Fish Habitat and Substrate Mapping

- Hi-res imaging of the nearshore bottom habitat using a side- or forward-looking multibeam imaging sonar system.
- Sonar image processing software is used to generate acoustic "pictures" of the bottom substrates and physical features. Sonar images are stitched together into habitat mosaics.
- Bottom substrate features (rock, cobble, wood debris, sandbars, etc.) and sub-surface infrastructure (i.e. water intake pipes and caps, dredge cuts, etc.) can be readily identified and geo-referenced.



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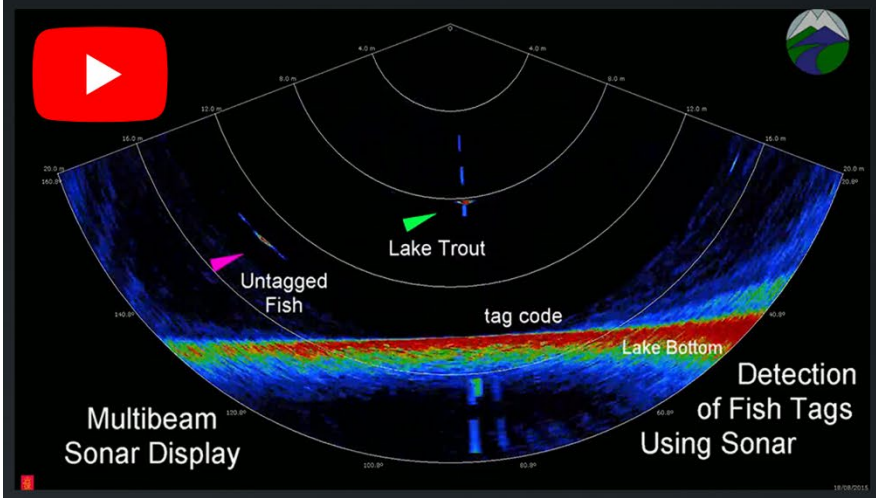
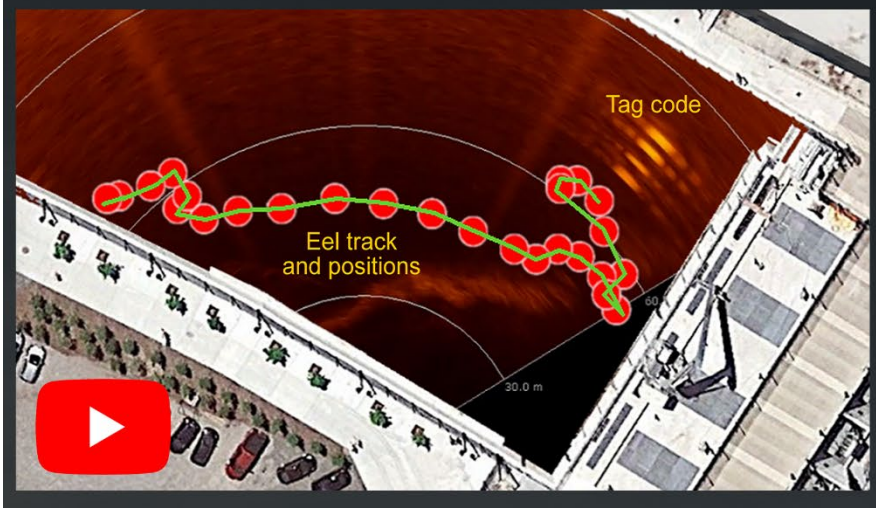
Split-beam Echosounder Data Collection and Processing

- Size stratified estimates of large- and small-bodied fish density, abundance and biomass using quantitative split-beam echosounder survey data.
- Planning to collect your own acoustic survey data? No problem! We provide full post-processing, analysis and reporting services for all major hardware manufacturers (Simrad, BioSonics, HTI etc.).
- We use only Echoview acoustic processing software for echo integration, fish track detection & counting, calibration & noise removal, prey fish school analysis and bottom substrate classification.
- Deliverables include user-friendly MS Access database summaries, publication quality ArcGIS maps, figures and tables summarizing results. The report includes a detailed description of the processing methodology.
- We also provide on-site acoustic systems training. Let us get your crew started on reliably collecting their own high quality data.
- Meet our clients and recent publications & reports.





Integrated Sonar and Biotelemetry System

- Acoustic fish tags are activated, detected and decoded by a multibeam sonar system.
- No expensive multi-receiver array is required. A single sonar head can geo-locate tags within > 120° field-of view and beyond 100 m in range.
- Transponder-type tags "wake-up" and only transmit ID (and sensor) codes when a multibeam sonar ping is detected. Very long battery-life (3+ years) given tag enters "sleep-mode" when outside of sonar sampling area.
- Ideal for assessing Eel and Sturgeon passage at hydro-electric facilities and cooling-water intakes.
- Accurate acoustic fish abundance estimates using size-stratified pseudo-mark/recapture models.
- Simultaneous tag detection and bottom substrate imaging (mosaics) to identify critical aquatic habitats.
- Subscribe to our YouTube Channel for more information.

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