FISH BIOMASS VALIDATION

Infofish's advanced sampling methods can uncover (and validate) everything you need to know about your water body's ecosystem! In partnership with Garmin, Infofish has developed a complimentary survey method to our all-in-one that focuses on validating fish presence, species and behaviour.

WHO WE ARE

Infofish is a leading expert in the field of Echosounder based surveys, having surveyed over 450,000 acres in over 50 locations for local and international clients. We work hard to deliver the most comprehensive and cost-effective ultrasonic aquatic surveys on the market, revolutionising how biomass, habitat, and bathymetry surveys are conducted.

WHY VALIDATE?

The Biosonics DTX with it's 200m range provides exceptional water coverage, but for due diligence and capturing fish behavior we utilise additional recordings.

- traditional two-dimensional (2D) sonar recording review (Humminbird)
- live scanning sonar for recording fish presence and behaviour (Garmin Livescope)

2D vs Live Recording
Selecting Technology

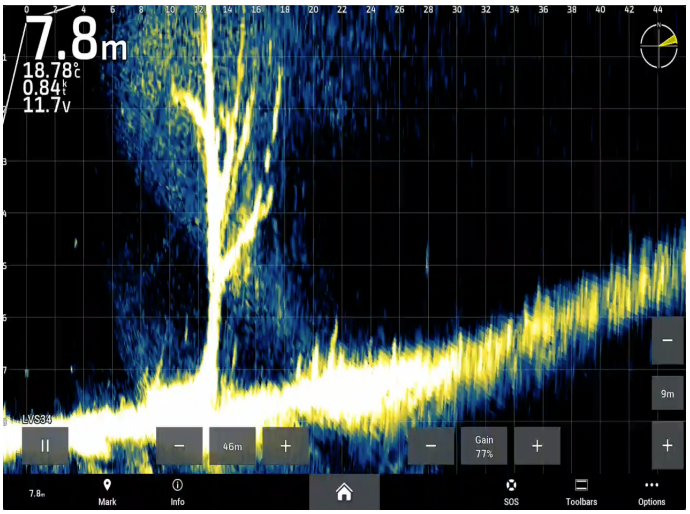
Validation technology selection is dependent on the type of issue being considered.

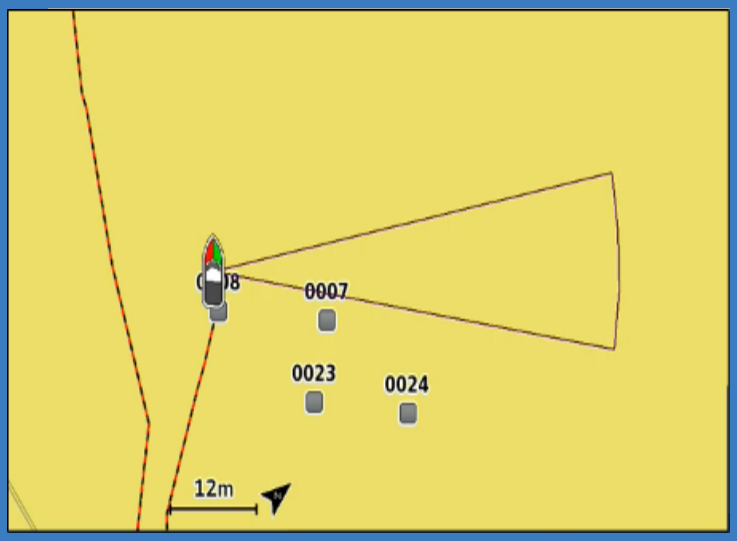
2D:

- Secondary validation of biomass. Shows position of fish in the water column, presence of algae, fish schools and relative abundance.

Livescope:

- Comparing specific habitats such as timber, channel banks or bays.
- Identifying which fish species may be using different parts of the water column.





Data Collection
On the water

Two-dimensional sonar data is collected using the Humminbird Helix 10 Mega Side Imaging GPS fish finder (Helix) or the Solix 12 Chirp Mega Side Imaging GPS fish finder (Solix). The 2D data is recorded directly beneath the vessel, during habitat and fish biomass surveys.

Live scanning sonar is done with the Garmin LiveScope transducer (LVS32 or LVS34), attached to a Garmin GPSMAP 8410xsv chart plotter. The transducer is mounted to a pole which sits vertically in the water, over the side of the vessel and the transducer can be set to either forward looking, down looking or perspective mode (top down).

Reviewing Validation Data
Post Processing

Once the processed fish biomass pointsource data is available, it is displayed in mapping tools, over the bathymetry data and habitat mosaic for the survey location. Fish are represented by dots and are typically classified by size and depth for review. This is crossmatched by reviewing same location (GPS) in Reefmaster to view the 2D data.

For Livescope data a movie file is exported from each recorded transect, as well as a GPX file with the boat track and marked objects such as fish or habitat. The GPX file can be viewed in the mapping tools to compare directly against biosonics. Additionally the movie file is reviewed to validate each marked track.