



## HABITAT SURVEY

Infofish's advanced sampling methods can uncover everything you need to know about your water body's habitat! Our all-in-one survey methods map Bathymetry, Underwater Habitat, Fish and Riparian areas in a single one-pass survey process.

### 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.

### HABITAT QUESTIONS

Depending on behavior characteristics, hunting strategy and stage of life, fish can be quite specific in their selection of habitat. Infofish Habitat surveys take the guess work out of understanding how much viable habitat is available by producing high resolution maps, classified habitat shapefiles and videos.

- ☑ Where is the submerged habitat in a water body?
- ☑ What types of habitats are available in the water body?
- ☑ What is the carrying capacity of available habitat features?



## Survey Design

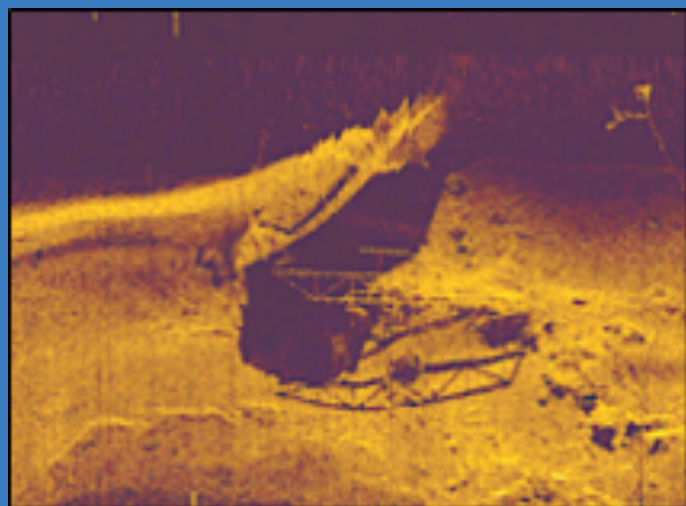
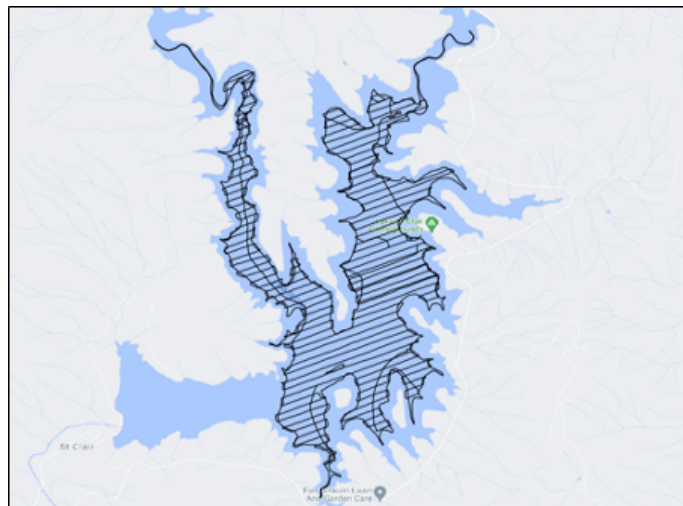
### Preparation and Planning

Riverine:

- ➔ two longitudinal transects (one upstream and one downstream) with the vessel travelling parallel to the bank, and
- ➔ additional longitudinal transects along the centre of a channel with the vessel travelling parallel to the bank to fill in any wider sections, where required.

Enclosed waters / impoundment:

- ➔ a shoreline / edge survey of the entire waterbody, and
- ➔ a number of transects across the waterbody, spaced 100m apart.



## Data Collection

### On the water

Raw aquatic habitat 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). Data is collected at the highest resolution possible for the type of waterbody being surveyed. In shallow (<10m) river or creek settings, the data is collected at 1.2 kHz (mega) producing high resolution imaging, while in large / deeper bodies of water, the data is best collected at lower frequencies (455 or 800 kHz) to gain greater coverage either side of the boat.

## Mosaics and Classification

### Post Processing

A habitat mosaic is made up of an edge or shoreline scan of a lake and numerous cross-transects, spaced 50 or 100m apart, depending on the transducer frequency setting being used. The recordings are edited to keep only the best sections of imagery and remove the sweeping / distorted imagery.

A classification shapefile layer is created and where a habitat element type is observed on the habitat mosaic, is marked with a GPS point and classified. The most commonly observed and classified habitat elements range from naturally occurring wood and rock, to anthropogenic structures like sunken boats to pontoons.

