

# NSW DPI Fisheries Conservation Technology Unit

# CATCH and RELEASE

## *fish for the future*

Owing to bag limits, legal sizes and catch-and-release practices, an estimated 47 million fish are released annually by anglers throughout Australia. Research involving anglers to estimate the mortality of several species has identified that relatively few fish die, but that survival can be maximised via subtle changes to fishing practices.

### CUT THE LINE

Compared to removing swallowed hooks from bream and mullet before release, simply cutting the line increased their short-term survival from 12% to more than 85%. Up to 76% of the released line-cut, gut-hooked bream then shed their hooks over an average of three weeks.

### REMOVE MOUTH HOOKS

Because some mouth-hooked bream and mullet subsequently swallowed their hooks after being released with their lines cut, these hooks should be removed.

### MINIMISE AIR EXPOSURE

Minimising air exposure increased the survival of bream and mullet, and also reduced their stress.

### USE KNOTLESS LANDING NETS

Compared to knotted landing nets, those made from knotless, fine mesh reduced fin damage to dusky flathead. Other research suggests that to reduce scale damage, fish should be handled using wet gloves.

### MAINTAIN WATER QUALITY

Holding silver trevally in onboard live-wells reduced their survival from 98% to 63%. If live-wells are used, water quality should be maximised via the use of flow-through, aerated systems.

### USE THE RIGHT RIG

The use of floats, short traces, large sizes of all types of hooks and hard baits have all been shown to reduce gut hooking in bream, and therefore improve their survival.

Species	% survival	Why they died?
Bream	72 - 97	Hook location
Mullet	73 - 81	Hook location and handling
Sand whiting	93	Hook location
Snapper	67	Hook location and handling
Silver trevally	63 - 98	Time spent in live-wells
Dusky flathead	96	Handling



Further research is being done with recreational anglers to estimate and maximise the survival of other key recreational species in Australia. For more information, contact:

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