

A blue sky with light clouds over a blue ocean, with the word 'WELCOME!' in large yellow letters.

**WELCOME!**

# **The FishSmart Barotrauma Workshop**

***Putting science  
into practice***

**The measure of  
our success will be  
at the *angler/fish*  
interface.**



# **Workshop Goals**

**Identify best practices and equipment to employ by anglers and regulatory agencies to increase the survival of angler-caught and released saltwater fishes, with emphasis on reef fishes under a variety of conditions/fisheries.**

**Develop outline for  
messages directed to anglers  
to employ in their  
interaction with saltwater  
species**

**Provide guidance to management bodies to reduce the interaction and lethality of interactions with species sought by anglers through consideration of management actions such as: time/area closures; gear modifications; restrictions/usage and size restrictions, and account for and incorporate release mortality/survivability into the regulatory process**

**Identify gaps in the  
current state of  
knowledge in need of  
additional research  
efforts/funding**



# **BEST PRACTICES**

...if the angler can not  
implement it we have not  
changed a thing!



**A bit of  
FishSmart  
history...**

*Gently Does It!*



*Gently Does It!* is an Australian National Strategy for the Survival of Recreational Line Caught Fish it has elements of:

- **Stewardship**
- **Outreach**
- **Research**
- **Industry/Angler/Government Cooperation**

# **FishSmart**

**A partnership between government,  
the sportfishing industry and  
recreational anglers, to reduce  
unintended mortality from recreational  
fishing through cooperative research,  
proactive/innovative public awareness  
and development of technology  
and techniques.**

***Gently Does It!***



**FishSmart**

# OUTREACH

*Gently Does It!*



*Gently Does It!* is the theme of a campaign showing recreational fishers how to release fish to improve their chances of survival.





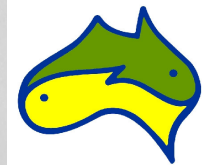
# National Strategy for the Survival of Released Line Caught Fish



**Australian Government**  
**Fisheries Research and  
Development Corporation**



**REC  
FISH  
AUSTRALIA**



# Improve survival of released fish

- **Better understand the effects of fishing (research)**
- **Adopt an consensus code of best practices**



# Improve management

A fisherman wearing a blue cap and a dark jacket is shown from the side, holding a large, silvery fish. The fisherman's jacket has a logo that reads "Proudly Sponsored by THE WIN TELEVISION BLUEFIN RACING". The background is a light, hazy sky, and the outboard motor of a boat is visible in the lower right corner.

- **Reduction in mortality of released fish**
- **Inclusion of fish survival rates in stock assessment**

# Investment

A person wearing a wide-brimmed fishing hat and sunglasses is shown from the side, holding a large fish. The person is wearing a dark jacket with a logo that says "Proudly Sponsored by WIN TELEVISION BLUEFIN". The background is a light, hazy outdoor setting, possibly on a boat, with the outboard motor of a boat visible in the lower right corner.

- **Largest investment in any recreational fishing issue**
- **FRDC a catalyst and provided funding for the management of the strategy**
- **18 projects from 2001-2009**
- **Total investment \$7.2m (AUS)**

# Promotion of Best Practices

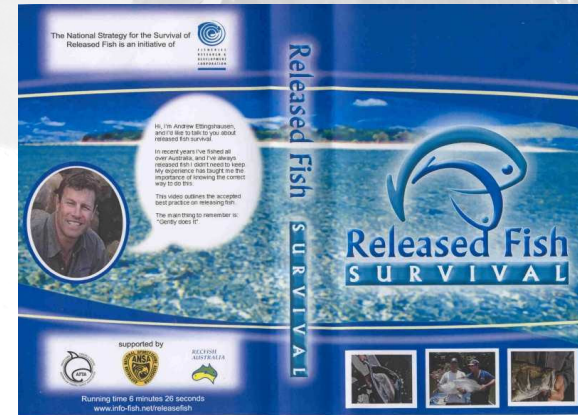
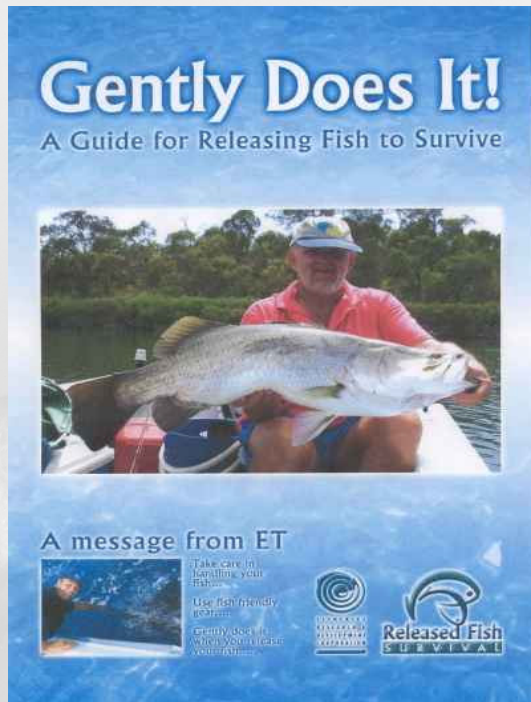
- **National TV campaign in 2003 featuring well known fishing identity Andrew Ettinghausen**
- **Best practices video (now DVD) featuring ET**
- **Pamphlet promoting best practices sent to all tackle shops around Australia.**
- **Pamphlet included as a lift out in national fishing magazine, sent to fishing clubs and provided to government agencies**
- **Website with fact sheets**

***Gently Does It!***

**Communicated best  
Practices through the  
“ET” video and printed  
materials.**



# Information Products





# Information Products



knotless landing net

## What happens to barramundi after release?

A study was conducted by a group of the Northern Territory Department of Resource Development to assess the post-release survival of barramundi caught and released.

To assess the physiological condition of barramundi caught and released, transmitters were attached to the fish before release.

The study found that the survival of barramundi caught and released in a fresh water environment was significantly higher than those caught in a saltwater environment.

Therefore the use of knotless landing nets is recommended for catch and release of barramundi.



### Tackle

The tackle that will best suit your fishing.

### Barotrauma

Learn how to deal with barotrauma in barramundi to ensure the best possible survival after release.

### Measuring

Learn how to measure your barramundi correctly to ensure the best possible survival after release.

## Release Survival For Man

Release Survival For Man

## Do released flatfish

Due to size and bag limits many flatfish are released. The Northern Territory Department of Fisheries and Aquaculture has developed a range of techniques to improve the survival of released flatfish.

## NSW DPI Fisheries Conservation CATCH and RELEASE fish for the future

Owing to bag limits, legal sizes and catch-and-release practices, anglers release many fish. Research involving anglers to identify that relatively few fish die, but that survival can be maximised.

### CUT THE HOOK

Compared to removing the hook from the fish and releasing the fish, cutting the hook out of the fish increases short-term survival from 12% to 40%, up to 70% of the fish released gut-hooked (hooked through the gut) over an average of three days.

### REMOVE MOUTH HOOKS

Because some mouth-hooked fish die, many anglers remove the hook after being released with their fish. These hooks should be removed.

### MINIMISE AIR EXPOSURE

Minimising air exposure increases the survival of bass and mullet, and also reduces their stress.

### USE KNOTLESS LANDING NETS

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

### MAINTAIN WATER QUALITY

Holding a few fish in onboard livewells reduced their survival from 80% to 50%. If livewells are used, water quality should be maximised via the use of flow-through, aerated systems.

### USE THE RIGHT RIG

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

Species	% survival	Why they died?
Bream	72 - 87	Hook location
Mulloway	73 - 81	Hook location and handling
Sand whiting	83	Hook location
Snapper	87	Hook location and handling
Silver treasn	63 - 90	Time spent in the well
Dusky fishhead	95	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: NSW DPI Fisheries Conservation Technology Unit, PO Box 320, Glen Innes NSW 2468. Web: www.nsw.dpi.gov.au Phone: 02 6948 3910 Fax: 02 6651 6580

## THE RELEASE WEIGHT

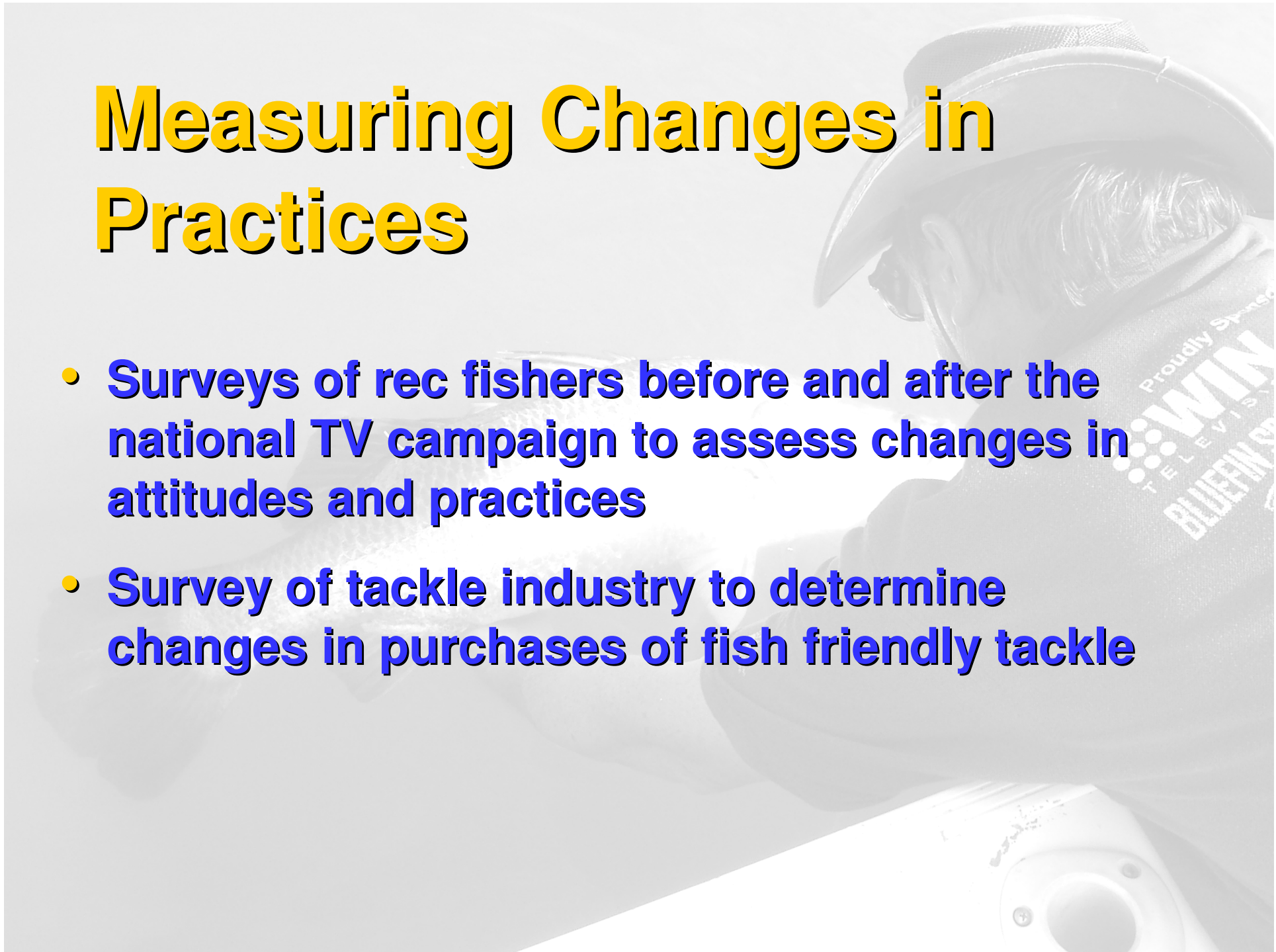
### TO IMPROVE THE SURVIVAL OF RELEASED REEF FISH

### Contact Fisheries Research Institute

Visit our website

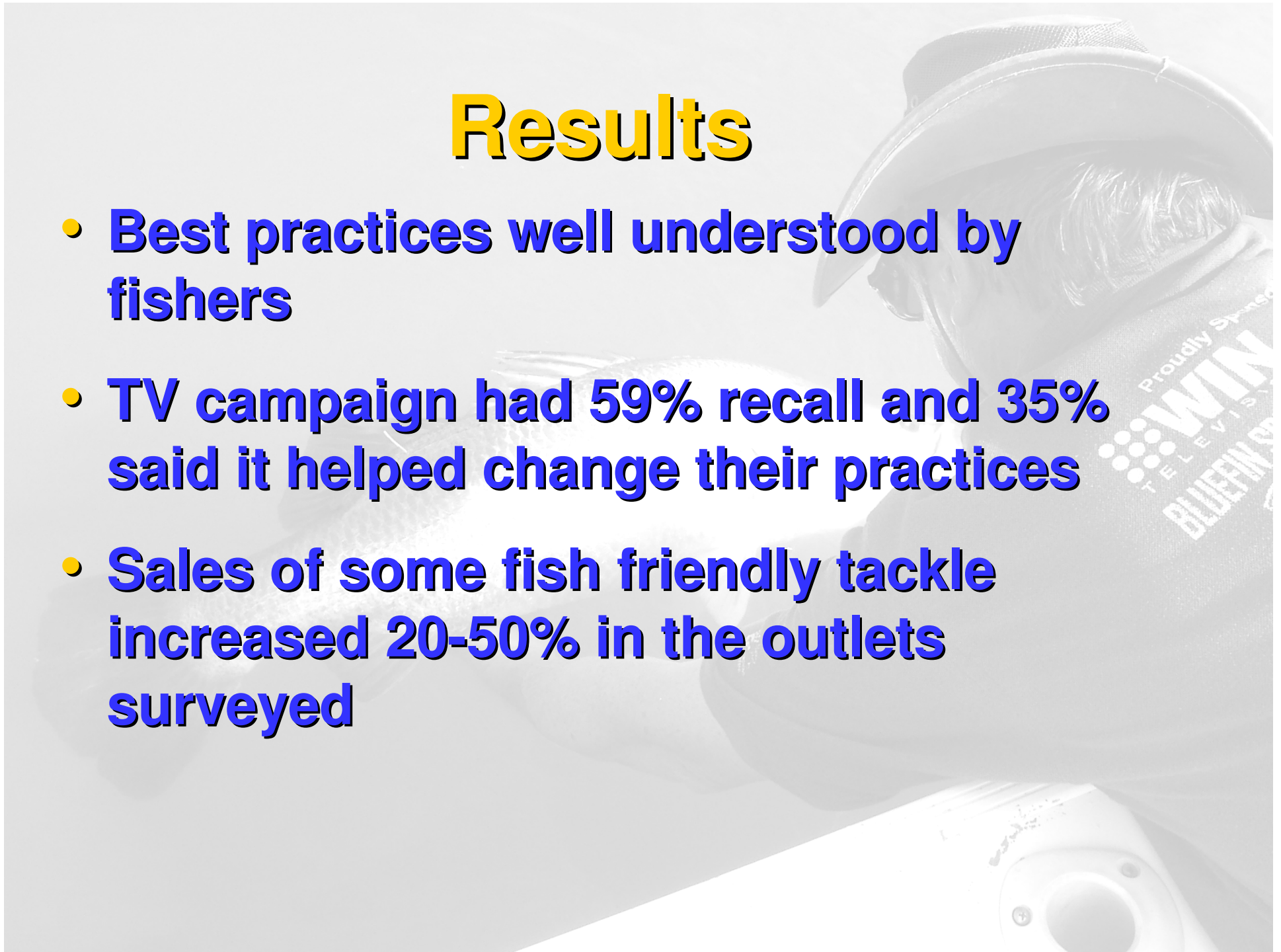
# Measuring Changes in Practices

- **Surveys of rec fishers before and after the national TV campaign to assess changes in attitudes and practices**
- **Survey of tackle industry to determine changes in purchases of fish friendly tackle**



# Results

- **Best practices well understood by fishers**
- **TV campaign had 59% recall and 35% said it helped change their practices**
- **Sales of some fish friendly tackle increased 20-50% in the outlets surveyed**



# **FishSmart**

## **Develop Information**

- **Start with this barotrauma workshop**
- **Analysis of the use of release mortality in FMPs.**
- **Analysis of current outreach products.**
- **Identify Fish Friendly Products**

# **FishSmart**

**will communicate results  
through...**

- **FishSmart website**
- **Recreational Boating and Fishing Foundation (RBFF)**
- **Sea Grant**
- **Federal and State Fishery agencies**
- **Councils and Commissions**
- **Industry**

# **FishSmart**

## **RBFF Communications**

- **Australians used TV and print media**
- **RBFF will use active web content**
- **Development of web material is only the beginning. RBFF spends considerable resources driving anglers to their material through commercial marketing and advertising mechanisms**
- **Complemented by ongoing market research**

# **Development of Message Content: How Will It Be Used?**

**Michelle Lampher, Vice President,  
Marketing, Recreational Boating  
and Fishing Foundation**