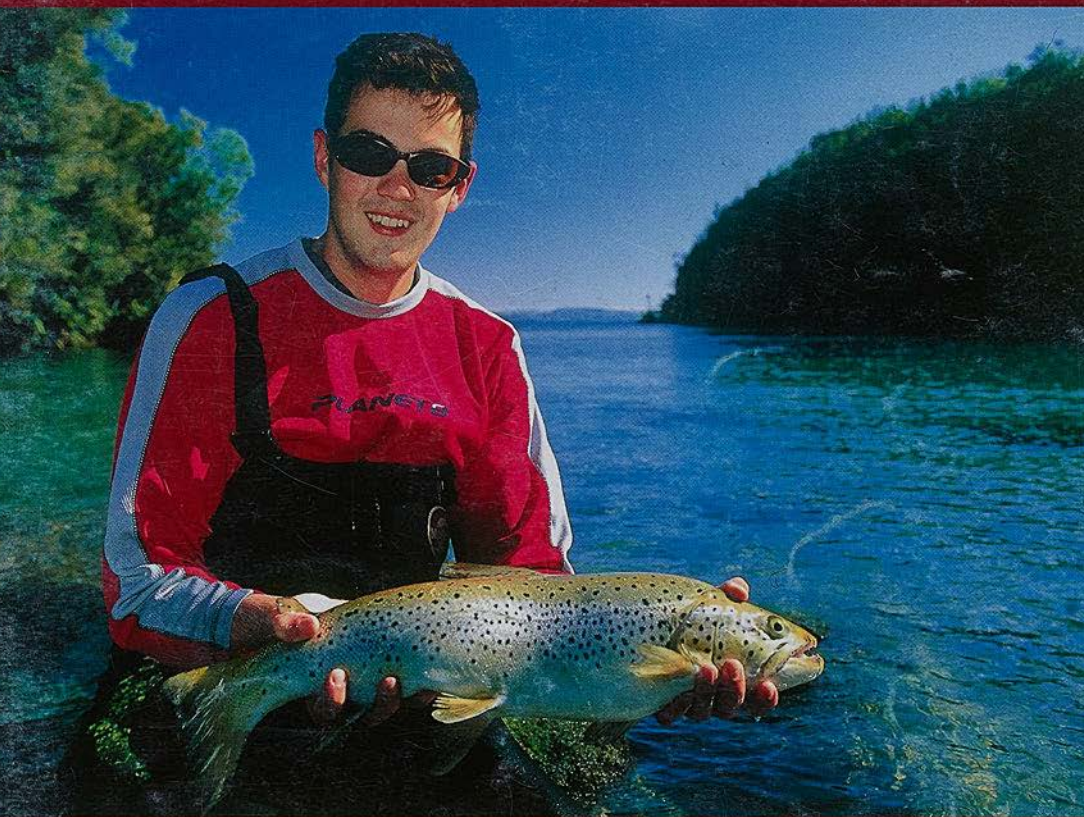


# TARGET TAUPO

A newsletter for Hunters and Anglers  
in the Tongariro/Taupo Conservancy

MARCH 2003, ISSUE 42



Department of Conservation  
*Te Papa Atawhai*





# Frog Hair®

## Freshwater Tippet & Leaders

An Evolution in Freshwater Tapered Leader Design  
How do you like 'em ...Supple or Stiff?

Frog Hair™ Tapered Leaders are the world's first knotless tapered leaders available with either supple or stiffbutt sections.

Supple Butt Tapered Leaders - Frog Hair Supple Butt - Supple TIP Tapered Leaders have an extra supple butt section to provide a higher ratio and a better knover for the most steady presentation possible. This extra supple butt offers superior joint strength, increased toughness, and built-in shock resistance with the most natural, drag-free presentation of any tapered leader.

### The Most Revolutionary Freshwater Tippet, Leader & Butt Materials

High Performance tippet and leader materials - High strength polyurethane uses GOMMAK's exclusive proprietary process plus dramatically increases the elasticity, suppleness and "Shock Resistance" of the material while adding an incredibly high strength to diameter ratio. Suppleness and low coil memory make the material easy to handle and the knots that draw down smoothly for tighter, stronger, more secure knots. The result is a more natural, drag-free presentation for more takes and hook-ups and greater fighting capability for landing more and bigger fish.

Size	Diameter	T Length	Elasticity	Spool Length
6x	.005" / 127mm	3.70' / 1.12m	81%	22.8yds / 33 M
5x	.006" / 152mm	4.95' / 1.50m	32%	32.8yds / 33 M
4x	.007" / 178mm	6.20' / 1.89m	32%	32.8yds / 33 M
3x	.008" / 203mm	8.50' / 2.59m	24%	32.8yds / 33 M
2x	.009" / 228mm	11.80' / 3.60m	39	39922 gnds / 30 M
1x	.010" / 254mm	13.10' / 4.00m	35%	22.8yds / 30 M
0x	.011" / 279mm	15.80' / 4.81m	36%	32.8yds / 30 M



Spool Size	Taper Diameter	Test Strength	Butt Diameter	Leader Length
7X	.004" / 102mm	2.2lb / 1.0kg	.019" / .483mm	9.5 ft / 2.9M
6X	.005" / 127mm	3.2lb / 1.5kg	.019" / .483mm	9.5 ft / 2.9M
5X	.006" / 152mm	4.4lb / 2.0kg	.021" / .533mm	9.5 ft / 2.9M
4X	.007" / 178mm	5.5lb / 2.5kg	.021" / .533mm	9.5 ft / 2.9M
3X	.008" / 203mm	8.0lb / 3.6kg	.021" / .533mm	9.5 ft / 2.9M
2X	.009" / 228mm	8.8lb / 4.0kg	.023" / .584mm	9.5 ft / 2.9M

Spool Size	Taper Diameter	Test Strength	Butt Diameter	Leader Length
3x Stiff	.008" / 203mm	6.6lb / 3.0kg	.025" / .635mm	9.5 ft / 2.9M
2x Stiff	.009" / 228mm	8.8lb / 4.0kg	.025" / .635mm	9.5 ft / 2.9M

### Stiff Butt Tapered Leaders - Frog Hair Stiff Butt - Supple TIP

Tapered Leaders have a heavier, stiffer butt section when a more powerful turnover is needed to punch through the wind or when fishing in large water with heavy flies. As with the supple butt leaders, the stiff butt leaders also have an extra supple butt offering disease superior joint strength, incredible toughness and built-in shock resistance that delivers the most natural, drag-free presentation possible.

Designed In The Lab - Proven In The Field

# KILWELL

# EXCELLENCE THROUGH EXPERIENCE

Presentation

...the secret to a great fly rod lies in the uncompromising dedication to quality...

INNOVATION

Available in 2, 3 & 4 pc, weights 5 through 9.

Designing functional rods with features that work, paying close attention to every last detail and backing what we make with our personnel guarantee is the Kilwell Rod Craft seal of quality



Only KILWELL ROD CRAFT NEW ZEALAND MADE RODS come with a Special 5 Year Unconditional Rod Blank Guarantee - Regardless of the circumstances of any rod blank damage or breakage KILWELL will repair or replace the rod free of charge. This warranty is in addition to the KILWELL lifetime warranty covering manufacturing defects.



Anglers demand better, stronger reels  
Introducing the latest addition to the TICA Family

Precision frame along with the unique wooden handle provide performance as well as comfort.

- 3 models available #4/5, #5/6/7, #7/8/9
- Lightweight aluminum construction
- Anti Glare Matte Black
- Smooth disc drag system
- Counter balanced spool
- Exposed rim
- Perforated spool and cage



KILWELL FISHING & SHOOTING

# Out there and doing it!

Recommending RAMCO BOATS

# TARGET TAUPO

**A newsletter for Hunters and Anglers  
in the Tongariro/Taupo Conservancy**

MARCH 2003, ISSUE 42

Published by  
Taupo Fishery Area  
Department of Conservation  
Tongariro/Taupo Conservancy  
Private Bag, Turangi, New Zealand  
Telephone (07) 386 8607

Front cover: *Gary Greenhalgh with a brown trout caught in  
Cherry Bay, Lake Taupo. Photo: Brendon Matthews.*

ISSN 0114-5185

Production and advertising by Fish & Game New Zealand  
Contact Peter McIntosh: Telephone (09) 634 1800  
Facsimile (09) 634 2948

# CONTENTS

Taupo Fishing District Map .....	3
Editorial .....	4
<i>by Paddy Gordon</i>	
Treble Hooks for Taupo? .....	5
<i>by Michel Dedual and Glenn Maclean</i>	
Fishy Dreams .....	11
<i>by Michel Dedual</i>	
Fish Salvage on Wairchu Canal .....	14
Compliance and Law Enforcement Update .....	16
Angling Seminars .....	16
Evening Dry Fly Fishing on Taupo Rivers .....	18
<i>by Dave Hart</i>	
The Fishing Season - Good Reports from Western Bays.....	23
Just another day's fishing in New Zealand? .....	26
<i>by Bernie Baker, Bainbridge Island, Washington, USA</i>	
An Unusual Catch .....	30
Kids' Fishing Days, 2003 .....	31
Distribution of Target Trout .....	31
Slip in the Tongariro River .....	32
Tauranga-Taupo River Back in Old Channel .....	34
Fishery Area staff changes .....	38
Solid Summer Season .....	39
<i>by Glenn Maclean</i>	
Waimarino River Works .....	43
Tracks Update .....	43
Smelt Monitoring .....	44
Team Profile .....	46

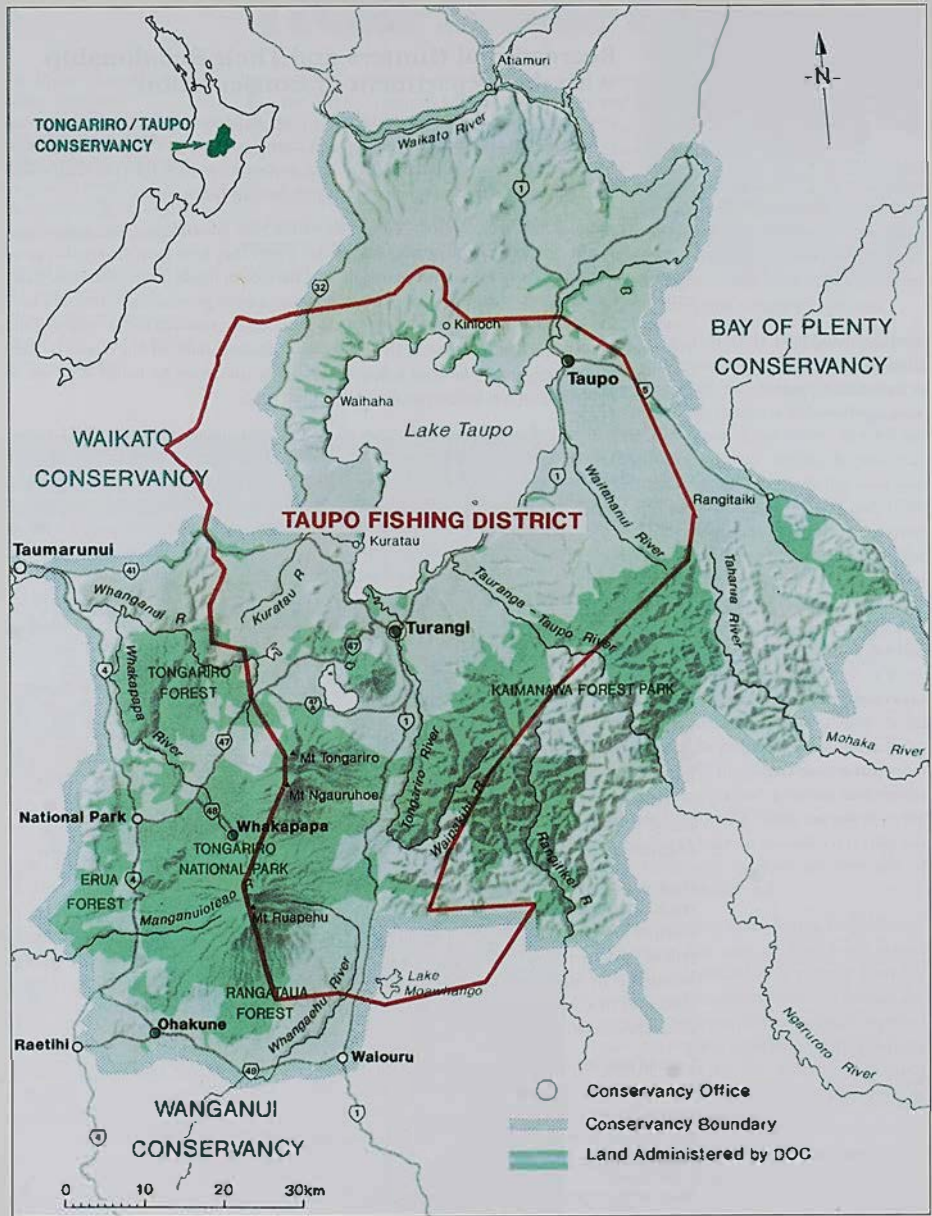
*The views expressed in Target Trout are those of the contributors and do not necessarily reflect Department of Conservation policy*

*Organisations and agencies are welcome to print articles in an unaltered form from this publication, providing full acknowledgement is given to the Department of Conservation. The printing of information in any other form requires the express permission of the Conservator Tongariro/Taupo Conservancy, Department of Conservation, Taurangi.*





# Tongariro/Taupo Conservancy



# Editorial

## Recreational Hunters and Their Relationship with the Department of Conservation

Over the years I have been saddened to see a deterioration in the relationship between the Department and its staff and recreational hunters and hunting groups. I believe for the interest and benefit of both parties we need to turn the relationship around and try and work on the positives that do exist between us.

Recreational hunting for introduced species within New Zealand has a long and difficult past. In particular deer have gone through periods where they have been managed as game animals and in some cases for a short period of time have been legally protected. From those early times where deer were looked at by officialdom in a more positive light, attitudes have changed. This change in attitude has been brought about by the concern for the ongoing survival and protection of our indigenous flora and fauna. Damage done to our forests by deer and other introduced species has had a devastating impact that must be halted if we are to retain any semblance of our indigenous heritage.

Under current legislation the present status of deer is wild animal, under the Wild Animal Control Act. Responsibility for their control on public land it manages, on behalf of the people of New Zealand, rests with the Department of Conservation. Deer being treated as a pest, and at times the control measures used for other pests by the Department, brings recreational hunters and the Department into a confrontational situation. Many hunters disagree both on the need for control measures and the methods used to reduce deer numbers. This conflict of interest and beliefs have in my opinion left the hunting community with a feeling of not being listened to and excluded from mainstream conservation. They therefore see themselves at odds with the Department over the way much of the public land they are interested in is managed.

Given the resources the Department has to operate under, it will not be possible to control all pests over all the public land that it manages. Therefore, there is a need to prioritise our efforts across the full spectrum of ecosystems and sites. Off shore islands offer great opportunities to remove pests. They provide a safe natural habitat for many of our endangered species, but do not solve all the problems. There are also tracts of forests, wetlands and tussock grasslands on the mainland that are worthy of the highest protection that we can give them. At the other end of the spectrum there are large areas on which we will only be able to control pests less intensively. It seems obvious to me that recreational hunters have a role to play with the Department in helping to control deer numbers in these forests.

Hunting is a legitimate use of public land and DOC has a strong interest in nurturing a positive relationship with hunters and hunting groups. There are many ways in which we can work together for the mutual benefit of both parties and the environment. There are large tracts of remote back country where hunters are the only regular visitors and the only impact on deer numbers is by recreational hunting. These same hunters can also be a great source of information to DOC on such things as hut and track conditions and, with some training, species monitoring could be added to that list.

I would dare to suggest that hunting of an animal is not the only part of a hunter's enjoyment. There are many hunting trips where animals are not taken, however the experience of the surroundings, the wildlife and the company that is shared makes the trip worthwhile and memorable. The sharing of new experiences with fellow hunters and the enjoyment of the mountains, rivers and forest that make up the environment are part of the overall challenge.

Many of the elements of our back country experiences and DOC's aspirations for our environment are shared with the hunting community: let's build on these positives and who knows where this route will take us.



by Paddy Gordon,  
Community Relations  
& Technical Support  
Manager





# Treble Hooks for Taupo?

by Michel Dedual and  
Glenn Maclean

*Michel is the Elsbery  
Area Scientist. Having  
originally from  
Switzerland, he is also a  
very enthusiastic angler*

*Glenn is the manager of  
the research and  
monitoring programme  
in the Area, and is editor  
of Target Taupo.*

Last year as part of a detailed review of the Taupo Fishing Regulations we sought anglers' views as to the appropriateness or not of the current regulations. Eighty submissions were received covering the whole gamut of regulations and expressing a wide range of views. However no one suggested that the use of treble hooks be permitted.

Concurrently Fish and Game New Zealand have suggested allowing the use of treble hooks over the rest of New Zealand as part of a standardisation of their angling regulations. The debate stimulated by this has

caused a number of anglers and several angling clubs to approach us, concerned we might be considering a similar regulation change at Taupo.

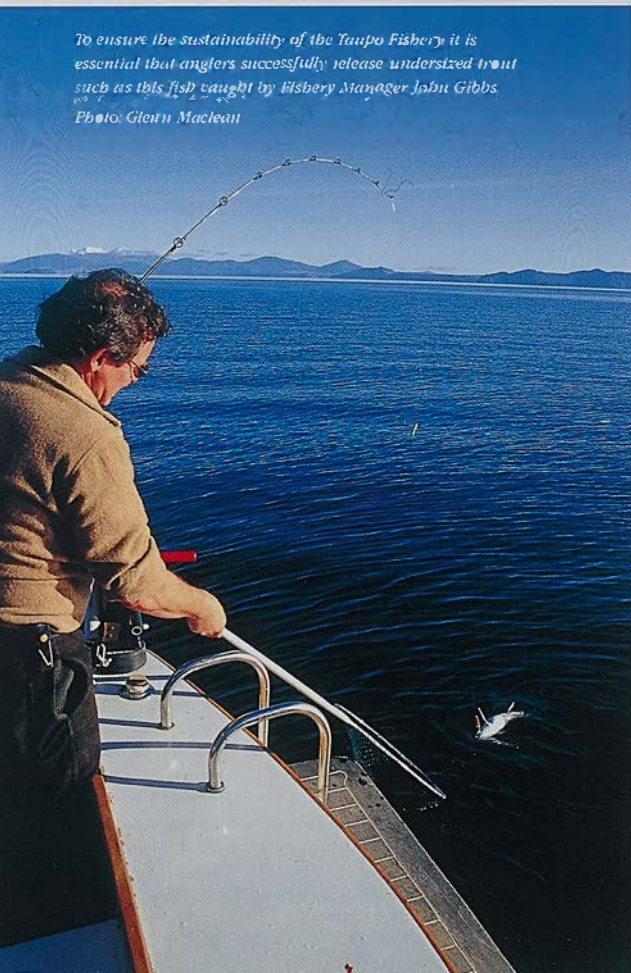
The following is a summary of our assessment of the appropriateness or not of allowing treble hooks in the Taupo Fishery. This assessment applies only to Taupo and there are clearly many factors which need to be considered which may or may not apply elsewhere.

The Taupo Fishery is heavily utilised and compulsory catch and release is an essential component of the fishing regulations to ensure that the fishery is not over-harvested. At the low point in the fishery in 1990 we estimated the annual angling harvest was 175 tonnes or 30% and 50% the total estimated trout production in 1988 and 1989. This is a considerable proportion of trout production and significantly higher than the best estimates of the theoretical "maximum constant catch"; that is, the catch estimated to be sustainable at all future levels of production. As a consequence, bag and size limits are now deliberately set at much more restrictive levels that require anglers to return a significant portion of their catch. However, these restrictions only work if the vast majority of the fish released actually survive the experience. Ignoring any ethical debates for the time being, the use of treble hooks could only be considered if they did not significantly increase the mortality of caught and released fish.

In the context of managing the Taupo Fishery the issues that must be considered extend beyond the application of a simple mortality rate derived from elsewhere. To compare the mortality between different types of terminal gear also requires knowledge of the catch per unit of effort for the different gear types employed in a fishery and the proportion of anglers using those gear types.

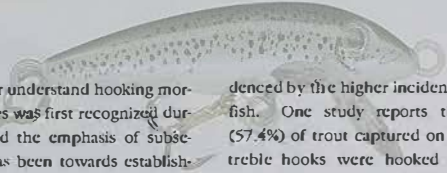
## Review of the literature on hooking mortality

Hooking mortality is commonly expressed as the proportion of fish caught that die shortly afterwards due to injury or stress directly attributable to specific angling gear.



*To ensure the sustainability of the Taupo Fishery it is essential that anglers successfully release undersized trout such as this fish caught by Elsbery Manager John Gibbs.*

*Photo: Glenn Maclean*



The need to better understand hooking mortality and its causes was first recognized during the 1940s and the emphasis of subsequent research has been towards establishing fish losses attributable to different types of hooks and lures. The published information on hooking mortality is vast and in this article we summarize and synthesise the results obtained from approximately 200 studies to compare the mortality caused by single and treble hooks. It is important to note from the outset that not all of these studies were done under similar conditions. For example, the number and species of fish used, the duration of the mortality monitoring following release, the handling of the fish and the water and air temperature during the experiments were highly variable. Despite the number of studies there are a paucity that have focused specifically at comparing mortality in rainbow trout caused by single and treble hooks. Nevertheless it is possible to make some generalisations.

From the small data base for rainbow trout there is no clear evidence from the published literature that the hooking mortality is different between treble and single hooks. Some studies report that mortality is higher using treble hooks, others that its lower, and yet others that there is no difference. The studies reporting a smaller hooking mortality for treble hooks explain their results by saying that single hooks are taken farther into the mouth and inflict a more serious wound. Treble hooks, due to their configuration, generally lodge in the mouth causing many superficial injuries. However, there is nearly 100% mortality if treble hooks become tangled in the gills. Many studies support these observations.

There are also many studies conducted on other species that indicate the mortality rates are similar using these two gear types. A review of 18 hooking mortality studies on various trout species demonstrates no difference in mortality rates between single and treble hooks. However, the size of the treble hook in relation to the size of the fish caught is important. When small treble hooks are used they are more easily ingested than single hook flies and cause significantly higher mortality.

Trout caught on treble hook equipped artificial lures sustain more physical trauma than those captured on single hook flies, as evi-

denced by the higher incidence of bleeding fish. One study reports that over half (57.4%) of trout captured on spinners with treble hooks were hooked in a location other than the jaw and 27.8% were bleeding when unhooked. Only 13.6% of trout captured with flies were hooked in a location other than the jaw and only 2.5% of those were bleeding when unhooked. Some studies conclude that salmonids hooked in a non-jaw location (gills, oesophagus, tongue, or eye) are four times more likely to die regardless of hook type.

Another study reports that 86% of landlocked Atlantic salmon that were bleeding at capture died. If bleeding at capture is considered a predictor of eventual mortality, then the spinner hooked trout in this study were about 11 times more likely to experience delayed mortality than fly caught trout.

The studies presented in the literature review agree on one point: lures equipped with treble hooks are difficult to disengage from captured trout, particularly when hooked within the mouth or in the gills. This increases the time required to unhook the trout and thus the actual handling of the fish. The size of the treble hooks also affects the time to unhook.

There is some disagreement about the relationship between fish size and hooking mortality. Some studies report that hooking mortality estimates for trout are positively correlated with size of fish while other studies suggest that it is independent of fish size. However, the relative size of the fish and the hook is a factor influencing injury location. Proportionately larger hooks can lead to more severe injuries than those from smaller hooks in two ways. Firstly the longer points penetrate more deeply before the bend of the hook is reached. Second, the greater gape of a large hook permits the hooks point to impinge on central parts of the head before the shank contacts the periphery of the jaw.

One study points out that a small fish is not likely to engulf a relatively large treble hook far enough in its mouth to become hooked in the gills. In addition, the distance from a point across to the shank on the treble hook is too small to allow easy penetration of the brain or eye. However as the fish become larger, the same hooks are able to pass all the way back to the gills so that the



THREE WORDS FOR THE BLOWING WIND,  
SWIFT CURRENTS AND WIDE WATER:

BRING IT ON.

### Introducing the New Ultra High-Performance TCR Series.

This rod isn't for everyone. But in some situations, it just might be the only one. Our new, limited series Technical Casting Rods (TCR) are designed specifically for skilled casters facing the most demanding conditions—pushing hoppers into the wind on big Western trout rivers, wading dries into distant stretchhead lies or long shots at spooky bones. Basically, any time technical precision, distance and the ability to cut through wind are at a premium, the TCR will give you the advantage you need. To further maximize performance, we've even designed a special fly line just for the TCR, called the TCR Performance Taper. These lines are 110 feet long, with an extended belly section for increased line control and an extra-narrow running line for serious shooting distance. If you're ready to experience the extreme edge of ultra-fast rod design combined with the uncompromising fishability you expect from Sage, try a TCR. Who knows? You might even find yourself looking forward to Mother Nature's little challenges.



THE NEW  
TCR SERIES



**SAGE**  
www.sageflyfish.com

- Fisherman's Loft, Christchurch ● Sporting Life, Turangi ● The Fly & Gun Shop, Taupo
- Tisdalls, Auckland ● Tisdalls, Wellington ● Tisdalls, Palmerston North
- Fish City Ltd, Hamilton ● Fish City Ltd, Albany ● Hunting & Fishing Wellington, Lower Hutt
- The Complete Angler, Christchurch ● Centrefire McCarthys, Dunedin



*Ideally the fish should not be handled during release.*

*Photo: Len Borch*

injuries may become more severe. Single hooks of the same overall dimensions as treble hooks have a much larger gape and can easily penetrate the brain or eye. There is unfortunately no appropriately designed study that we are aware of that concentrates on observing mortality over a full range of fish sizes for fixed hook sizes and types. Such a study would provide the ultimate verification of whether treble or single hooks cause the greatest hooking mortality.

The hooking efficiency of the different types of hooks is also important but there has been limited research on the hooking efficiency of single versus treble hooks. One

study reported 41.9% of coho salmon hooked on treble hooks were lost compared to 33.3% for single hooks. Other studies suggest that lures which exhibit vigorous wobbling action when retrieved appear less likely to be deeply engulfed and consequently cause less mortality. Involuntary losses and their lethal or sublethal effects is an important factor but unfortunately there is insufficient data for a proper evaluation.

Hooking mortality can differ substantially from one species to another. This means that for a mixed population of trout, such as in Taupo, the hooking mortality may not be the same for brown and rainbow trout. The literature suggests that overall brown trout survive hooking and release better than rainbow trout. Taupo rainbow trout more closely resemble steelhead trout in their biology and size than the small riverine rainbow which have generally been studied. However, despite the abundant literature on hooking mortality there is a paucity of data specific to steelhead. The only published report dealing with mortality rates among steelhead involved fish caught on bait and artificial lures in British Columbia.

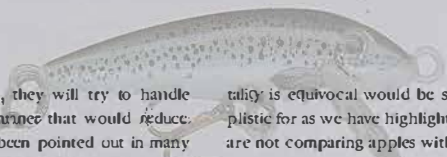
A useful study in the debate about treble versus single hooks for Taupo is the mortality and stress experiment that we carried out 10 years ago (even though we didn't directly compare single with treble hooks). This study confirmed similar studies in the literature that hooking mortality doesn't always occur immediately at release. Just because the fish swims off apparently fine, doesn't mean that it necessarily will survive. Our study confirms that most mortality occurs within the first 24 hours after release but other studies have shown it can occur as long as six days after release.

*...despite the abundant literature on hooking mortality there is a paucity of data specific to steelhead.*

The literature review indicates that in some studies the fish were caught by anglers using techniques considered to represent average

handling but in other studies the fish were caught by scientists using careful handling techniques unlike those practised in the real world. Indeed two studies acknowledged that fish capture and handling overseen by trained professional staff likely minimized the mortality rates. Another study felt that if the anglers have foreknowledge of the





experimental goal, they will try to handle their fish in a manner that would reduce mortality. As has been pointed out in many psychological studies, subjects in experiments typically try to perform toward what they perceive to be the expectations of the people conducting the experiment.

Intuitively it is a stressful experience for a fish to be hooked, handled, and released. We don't fully understand the long term impact of stress on fish physiology but it is now widely recognised that stress may interfere with spawning success. The stress studies we carried

*...any changes which make it even more difficult to release fish safely cannot be justified.*

out have shown that fish recover from the physical exhaustion caused by the "playing" if they haven't been pushed beyond their capacity. However, the stress caused by "fright" is more traumatic and lasts longer. During the catch and release of a fish the most stressful part of the "experience" for the fish is the handling. Indeed being netted, pulled out of the water, flapping on the deck or ground, touched by something much warmer than its own body and having its gills and organs squeezed during the hook removal is not a picnic! Irrespective of the angling methods used, mis-handling of the fish increases mortality. We have all seen fish swimming feebly on the surface following misguided attempts to release them. Anything which diminishes, either the duration or extent of the handling will improve the odds of the fish surviving.

Studies have shown that the time a trout is out of the water can play a significant role in its survival. The difference between 30 seconds and 60 seconds can be deadly for some species of trout especially the large ones i.e. the "trophies". Larger fish are also more difficult to handle hence higher handling-related mortality would be expected with increased length. Unfortunately the information on hooking mortality in trout longer than 40 cm is virtually absent from the published literature

### The Taupo Situation

If we group all of the studies in our literature search into either increased, reduced or no effect on mortality from using treble hooks then there are similar numbers of studies in each category. However, to then suggest that the evidence that treble hooks increase mor-

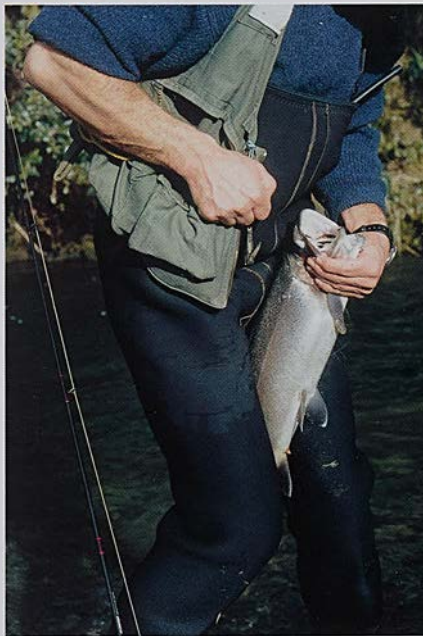
tality is equivocal would be somewhat simplistic for as we have highlighted the studies are not comparing apples with apples.

There are several points though which provide clear direction over the use of treble hooks in the Taupo Fishery: Firstly the fishery requires extensive catch and release. There can be little debate that one of the most important factors affecting fish survival is the handling they receive during their release. Unfortunately we have to acknowledge that generally the handling of fish at Taupo is poor and currently some fish die needlessly. Over the years we have adopted several initiatives to address this and are about to embark on several more. However any changes which make it even more difficult to release fish safely cannot be justified.

It is the combined experience of our fishery staff as anglers using treble hooks in a variety of fresh and salt water situations that they make it more difficult to release fish. Intuitively that is why anglers use them, because they will hook and land more fish. Such simple things as the second barb get

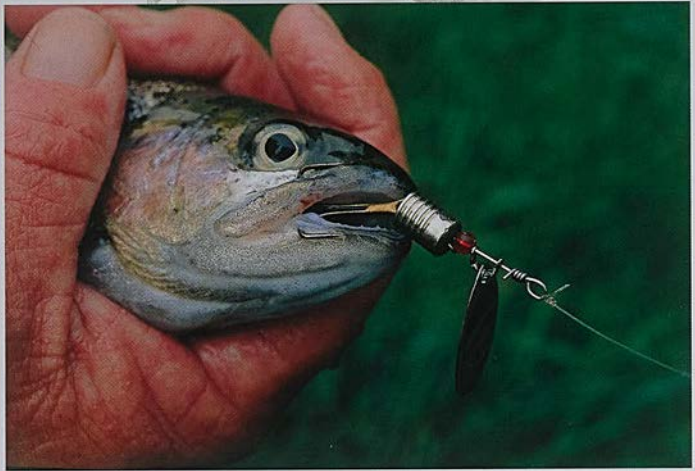
*Irrespective of the type of hook used, this fish is unlikely to survive such rough handling*

*Photo: Iku Birch*



*A mouthful of barbs increases the handling required to release this immature fish which will decrease its likelihood of survival.*

*Photo: Glenn Maclean*



ting caught in the landing net or on the side of the fish's mouth may require the angler to handle the fish longer or more tightly. Irrespective of whether treble hooks in themselves cause increased mortality, this increased handling when releasing fish will aggravate the mortality rate.

Secondly, there is good evidence that small treble hooks relative to fish size cause greater mortality than large treble hooks, presumably because the large hooks are less likely to be ingested back into the gills. If treble hooks were permitted it would therefore be prudent to restrict them to a large relative size to avoid damaging under-size fish.

Fish and Game New Zealand are seeking to standardise regulations across the rest of the country so that anglers can be confident that they are not inadvertently transgressing any regulations as they move around. However, the size of treble hook that may be appropriate in many fisheries comprising relatively small fish would clearly be too small at Taupo where our minimum legal length is 45cm (a fish of approximately 1.2kg or 2.5lb). So any regulation would need to be different at Taupo which removes the advantage associated with standardising the regulation with the rest of New Zealand.

#### **In summary**

We believe that the differences in mortality of trout caught with different lures or hooks are due primarily to differences in the frequency and extent of damage to the gill arch-

es and oesophagus area. Certain lures or hooks are more likely to be engulfed deeply, and thus are more likely to cause death. Therefore the best way to reduce hooking mortality is to avoid methods that result in deeply hooked fish.

Unfortunately though, irrespective of the methods used there is also significant mortality caused by poor or prolonged handling of the fish. In light of our own experiences we believe that a single hook will be easier to remove (handling time and effort reduced) than anything with multiple points. The effect of this on the mortality rate will be further increased when inexperienced fishermen and sadly even some experienced anglers are releasing fish.

In conclusion it is our view that the use of treble hooks is not appropriate in the Taupo Fishery. This view has been endorsed by the Taupo Fishery Advisory Committee. However, it is important to note that the Taupo Fishery is quite different in the way it functions and how it is utilised by anglers to other trout fisheries in New Zealand. The arguments against the use of treble hooks in this fishery may not be applicable in other fisheries where catch and release in particular is not an integral part of the management of the fishery.



# Fishy Dreams

by Michel Dedual

**A**nglers often talk tongue in cheek about the fish being asleep to explain their lack of success. But do fish really sleep?

Sleep can be described as a *psychological state of unconsciousness that is fully and easily reversible following some stimuli or a state of relative unconsciousness associated with an inactivity of the voluntary muscle system that is needed periodically*. Early scientists and philosophers saw sleep as a passive condition where the brain is isolated from the other parts of the body. Alcmaeon, the Greek who founded psychology, claimed that sleep was caused by the blood receding from the blood vessels in the skin to the interior parts of the body. Aristotle, another famous Greek philosopher, suggested that while food is being digested, vapours rise from the stomach because of their higher temperature and collect in the head. As the brain cools, the vapours condense, flow downward and then cool the heart which causes sleep. Still others claimed that toxins that poisoned the brain caused sleep.

More than a thousand years ago Sanskrit documents from Hindu mythology suggested that the human brain goes through alternate periods of awakening, sleep without dreaming and sleep with dreaming. It is only fifty years ago, when brain waves and later the electroencephalogram were discovered, that neurobiology verified this hypothesis. The most obvious difference between the three stages is the nature of the electrical activity in the brain. During sleep without dreaming, electrical activity is composed of "slow" waves. However, during sleep with dreaming it is composed of "fast" waves similar to those generated during the awakening phase. This odd attribute led Professor Michel Jouvet from the University of Lyon to establish the notion of "paradoxical sleep" to define the physiological state when a subject is sleeping but displays mental activity i.e. dreaming.

To understand sleep and dreams we first need to know why we sleep. This is not fully understood at the moment and explanations differ widely. The repair theory proposes that activities during the day deplete key factors in the brain or the body that are replenished and repaired by sleep. This theory makes sense since during certain stages of sleep there is a marked secretion of growth hormone, controlling many aspects of

metabolism, physical growth, and brain development. The finding that after having been sleep deprived for a long period, people tend to sleep longer when they have the opportunity also supports the repair theory. On the other hand the adaptive theory states that sleep evolved because it prevented early humans and animals from wasting energy and exposing themselves to dangers of predators. It was necessary for their survival.

## Sleep in fish and other animals

The study of sleep and dreams in animals and in fish in particular occupies a very small place in the voluminous literature on fish biology, probably because of the difficulties of undertaking experiments. Furthermore, it is not an easy task to extrapolate the observations made on humans to animals without entering into the slippery and somewhat esoteric domain of "psychophysics". Not many scientists are keen to venture in there! However some generalisations can be made.

Most animals have a daily pattern of rest and activity, and in many species these daily cycles are similar to us running around during the day then lying down at night and doing nothing or sleeping. It is believed that fish are no different, although it is a controversial subject. Some fish keep very still, experiencing a quiet period (Quiescence) that you might call sleep. Some animals have really interesting sleeping styles. For example, some birds sleep for brief periods with one eye closed and it is suggested that at this time one hemisphere of the brain is sleeping, and the other is awake. Elephants sleep for 3 to 6 hours, of which two hours are spent standing. Dolphins sleep about 30% of the day but only with one half of its brain while the other half remains alert. The two hemispheres alternate every one to three hours during sleep. Dolphins kept in aquariums usually swim in circles in the same direction during sleep. These examples highlight that not all animals need the same amount of sleep, for example the possum sleeps for 19.4 hours a day whereas the guinea pig only needs 1.9 hours.

The ability for many fish to swim continuously shows that bodily rest and rejuvenation, physiological restoration, and energy conservation, are not inherently indispensable. Many continuously swimming fishes would suffocate if they were to stop swimming. Sharks, tunas, bonitos, mack-

erels, albacores, salmon and trout and many nocturnal, reef-dwelling fishes that school swim perpetually. Their conspicuous habit of schooling greatly reduces needs for sensory information processing, and provides the essential benefits of quiet wakefulness and sleep.

Fish at inner positions within the school need not exercise the full range of their sensory capabilities. They have no need to 'listen', 'smell', or process complex visual information. They need only maintain awareness of their position with respect to their nearest neighbours, which also can be accomplished with the lateral line system. On average, then, the amount of sensory processing carried out in the brains of inactive schooling fishes is reduced greatly compared to the amount in alert, solitary swimmers. In effect, the burden of sensory processing is shifted from individuals to the entire school collectively.

The most interesting fish as far as sleeping is concerned is the parrotfish. That fish obtained its name from the very strong beak and teeth allowing it to eat coral. Once a parrotfish has chosen where to spend the night they begin to secrete gelatinous mucus that surrounds its body, and that would be totally transparent if not for the sand grains that adhere to it. Some species need approximately one hour to build this cocoon or "sleeping bag".

Some scientists believe that the cocoon hides their scent from predators like conger eels that locate their prey using the sense of smell. Others believe that it protects the fish from some kind of parasite that sneaks in to suck their blood. Close observation reveals that the cocoon of the parrot fish enters its mouth so that it can feel any movement around the cocoon. Anecdotal information suggests that parrot fish sleep is very heavy when they are in their sleeping bags and hence very easy to catch.

Some fish can also undergo a yearly sleep cycle; they hibernate and their metabolic rate slows right down. An example is fish which

sleep through harsh periods of the year such as the African lungfish, which buries itself in mud and survives the dry season protected by a cocoon of mud in the river bed. Native mud fish in New Zealand also burrow themselves in the mud during dry conditions; however, they don't enter into a torpid stage typical of sleep.

Adult trout in Lake Taupo are especially active when smelt move from the deep water to concentrate at the surface of the lake. This vertical movement starts at dusk and finishes at dawn when smelt return to deep water. We don't know how active the trout are during the day and it is hard to say if they sleep. Juvenile trout in the tributaries of Lake Taupo also have different levels of activity throughout the day. Our underwater observation suggests that in the Tongariro River many of them feed intensively at night but spend most of the day hidden underneath rocks. But again it is difficult to affirm if they are sleeping or not.

Brown trout can also be found motionless and in postures which suggest they are sleeping. Most of the time they seek cover of some sort, but sometimes, such as in the lower Tongariro in summer, they can be seen lying on a sandy bottom in very slow, shallow water. Brown trout in these postures are probably not feeding because very little food is available. Furthermore, the slow current means that they don't spend any energy to fight the current and they are probably resting. However, whether they are actually asleep is again unknown.

Fish don't have eye lids and therefore cannot close their eyes like us. However, to survive and avoid being eaten trout have evolved a highly acute set of sensory organs. They have a system of nerve endings in the lateral line that can detect the approach of danger through vibrations in the water. Watch a trout in the river while you stamp on the bank; though it may not see you, its lateral line will warn the trout that you are there. Its fins may quiver and the fish will flee.

*Brown trout often lie stationary on the bottom but whether they are actually sleeping is unknown.*

*Photos: Errol Cudby*







### The world of dreams

Science acknowledges that the awakening period is a requirement to survive but the purpose of sleep and especially the dream periods remains today one of the most irritating enigmas of neurobiology.

Fish, amphibians, and reptiles show an alternation of activity and rest but don't show the paradoxical sleep phase. This means that with our current understanding of the physiology of dreams we believe that fish don't dream. However, birds and mammals do. Possums are *in the* dreamers; they can dream for six hours a day whereas chickens apparently dream for only 25 minutes.

Why do we dream? Scientists are still debating this one. Remember, they haven't figured out what most of our brain capacity is used for, much less what dreams are or why we dream. There are several theories, some scientific and others psychoanalytical. Until someone can

prove or disprove one of these theories or pose an alternate one, we remain at square one. Our knowledge as to what causes us to dream is limited to the fact that we do dream, and that dreams occur during the "paradoxical sleep".

But why do birds and mammals dream but not fish, amphibians, and reptiles? Contrary to birds and mammals which can regulate their internal body temperature (homeothermous) fish, amphibians and reptiles cannot (poikilothermous). This is why scientists believe that the evolution of dreaming coincides with the homeothermia. However the jury is still debating if it is only a coincidence.

It may not be such a bad thing for a fish not to dream. Indeed, if you dream you have to realise that it was unreal. Imagine a trout dreaming that shags combing the river estuaries around lake Taupo are juicy big kono or smelt. It would be much safer for the trout to know next time it sees a shag whether it is a dream or not!



## The Tongariro National Trout Society



The centre is managed by the Department of Conservation in association with the Tongariro National Trout Centre Society. The role of the Society is to promote and foster public interest in, and understanding of, the Taupo fishery, other freshwater fisheries and freshwater ecology through development of the Trout centre wider promotion and education programmes.

To join the Society, fill out this form and send \$25.

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Post to: Tongariro National Trout Centre Society, P.O. Box 73, Turangi

# Fish Salvage on Wairehu Canal

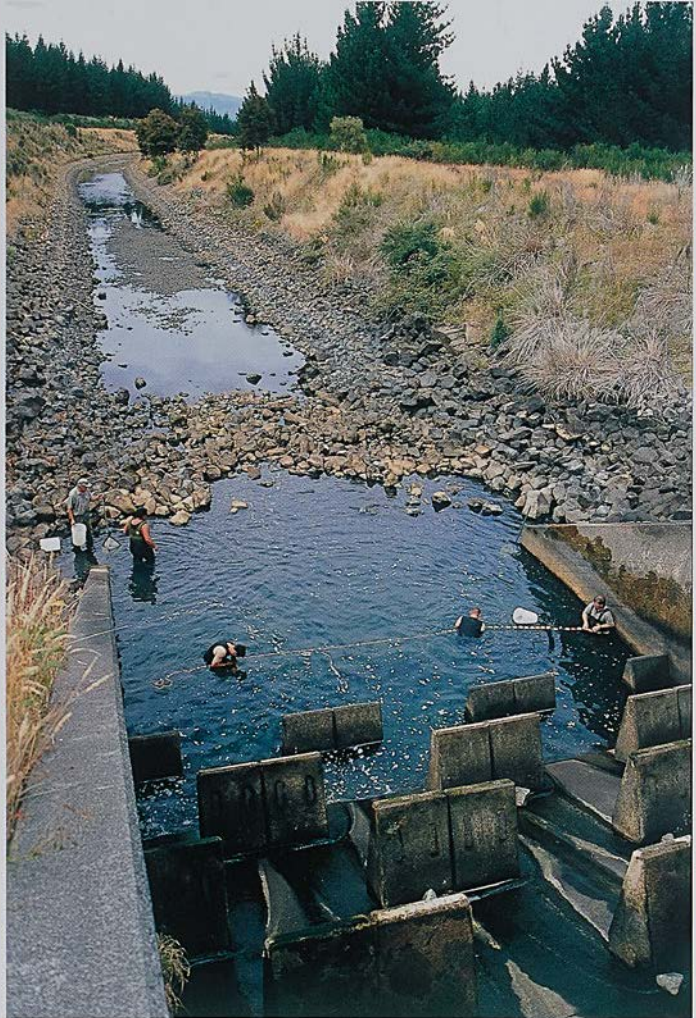
Under the minimum flow set for the Whanganui River, Genesis Power Ltd must maintain a flow at Pirika of at least 29 cubic metres per second (cumecs) or the natural flow, whichever is least. In practice, this means that often in late summer when the natural flows fall below 29 cumecs, Genesis must cease diverting water through the Western Diversion of the Tongariro Power Development. Normally water is diverted

from the Whakapapa, Okupata, Mangatepopo, Whanganui and Te Whaiu streams into Lake Otamangakau and on through the Wairehu Canal into Lake Rototaira.

During those periods when the diversions are fully closed (and no water is entering Lake Otamangakau) there will also be no water flowing down the Wairehu Canal. In this situation the canal largely dries apart from some

*Fishery Rangers (from left) Gordon McKenzie, Harry Hamilton, Dave Hart, Rob Hood and Roy Baker retrieve trout stranded at the base of one of the drop chutes in the Wairehu Canal.*

*Photo: Glenn Maclean*





Rob Hood (left) and Dave Hart release the recovered fish back into Lake Otamangakau

Photo: Glenn Maclean



small ponds at the base of each drop structure. Any fish in the canal tend to concentrate in these pools where they become stranded.

That there are trout in the canal puzzles many anglers who are aware of the drum screens to the entrance to the canal which act to stop fish passing downstream. However, each year numerous rainbow trout pass through the screens as fry, although brown trout do not. Rainbow trout fry caught on the screens often still have their yolk sacs and so are newly emerged. We suspect that life history differences between rainbow and brown trout mean that by the time brown trout arrive at the screens they are too large to pass through.

Once in the canal the fry thrive. For example, this summer there were several hundred very healthy juvenile trout of approximately 100mm to 200mm in length left stranded when the canal was closed in late February, due to weather and flow conditions. By seeing each of the pools at the base of the drop chutes we were able to recover just over 100 of these fish which were released back into Lake Otamangakau.

Genesis work closely with us over the salvage, advising us when they are going to have to close the canal to meet their legal obligations and paying our costs to recover the fish.

**BFR** British Fly Reels



**MODULA M75**  
LARGE ARBOR FLY REEL



Modula represents a unique combination of performance, practicality and cutting edge fly reel design, with features which cannot be found anywhere else.

Features include:

- Unique Large Arbor Interchangeable Cartridge system
- Fully CNC machined from Aerospace-grade aluminium
- True Hard Anodised finish
- Designed, manufactured and assembled in Britain
- Saltwater resistant






Cartridge System  
No need to buy spare reels/spools  
— just buy the Cartridge for  
different fly lines

Distributed by NORTH ISLAND: R.A. Conaghan Ph 09 638 6100  
SOUTH ISLAND: Alexto Sports 2000 Ltd Ph 03 477 0084 Available from good fishing tackle stores

## Compliance and Law Enforcement Update

Fishery Area staff working on our lake angler survey programme over the summer period have conducted 691 angler interviews to date and are pleased to report a high level of compliance. Together with these checks, ranging activity on a number of dedicated law enforcement operations resulted in 12 offenders being apprehended since the beginning of December. There were a variety of breaches including possession of undersize fish, exceeding the daily bag limit, jigging within 300 metres of river mouth exclusion zones and fishing with more than one rod. Often the offending anglers were visitors holidaying in the district and their actions perhaps indicative of a less responsible attitude to the regulations. These examples provide a timely reminder for all anglers to ensure they know the regulations, which is as simple as reading your fishing licence. One particular bugbear for rangers is anglers who fail to carry their licence when fishing. It is difficult for our staff to determine whether an angler who is not carrying their licence has simply left it behind as they claim, or is in fact unlicensed. To avoid the possible inconvenience and embarrassment of having your fishing gear seized until further enquiries can be made, please ensure you carry your licence with you at all times when fishing.

With river mouth fishing producing high catch rates, particularly in the Western Bays, rangers have undertaken a number of operations targeting night and early morning fishing activity to address concerns of possible overharvest and out-of-hours fishing. Only one apprehension for exceeding the bag limit was made and we were pleased to observe anglers displaying a good conservation ethic and releasing many of their fish caught, although the methods of some left a little to be desired!

Whether undersized or still recovering condition after spawning, these trout are important to the future of the fishery and need to be treated with care to ensure they survive. Anglers who employ poor fish handling technique and treat released fish roughly often do as much damage as those who ignore the rules and take more than their limit. When releasing an unwanted trout, don't drag it up the sand before removing the hook - support the fish in the water while unhooking it and avoid squeezing the gut or putting fingers into the gill area. Allow the fish to recover and swim away without providing the unwanted assistance of your boot or an aerial launch to assist it on the way!

With the arrival of the main spawning season for brown trout and a corresponding increase in angler activity targeting them, our monitoring and surveillance of river and stream mouths in particular will continue.

*Any anglers who observe suspected illegal activity are urged to contact us immediately, as information is of most use if we can respond quickly. During working hours the contact number for the fishery is (07) 386-8607 and after hours on the DOC Hotline: 0800 DOC HOT (0800 36 24 68)*

## ANGLING SEMINARS

Every year Taupo Fishery Area staff organise and present two free angling seminars for lake anglers.

These seminars are conducted as part of the department's annual Summer Programme. The seminars occur during late December and early January when visitor numbers are at a peak. Designed to improve the success and enjoyment of boat anglers, the seminars target those who are either new to trout fishing or holiday anglers interested in learning more about trout and how to catch more of them. Topics covered include: the life cycle of trout in Lake Taupo, when and where to fish successfully, angling methods and rigs, basic echo sounder use, catch and release techniques and key angling and boating regulations.

Over the past few years the seminars have been well attended and very well received. Many people return year after year to gain a better understanding of how the fishery functions and ways to improve their success.

In the future we also intend to run similar seminars for anglers who fly fish on Taupo's many rivers over winter. These seminars will be based at the new auditorium at the Tongariro National Trout Centre once this facility is complete.

Dates and times for future seminars will appear on the website ([www.doc.govt.nz](http://www.doc.govt.nz)) and in *Target Taupo*, nearer the time. We look forward to seeing you there.



# HAMILLS

## NEW ZEALAND

### RIVER WORKS

NEW ZEALAND

#### River Works New Zealand. Neoprene Chest Waders

- 5mm premium olive neoprene
- Rubber boots – fleeced
- Knee guards
- 3 piece crotch
- Stitched and taped seams
- Free repair kit
- 1 year warranty

N.Z. prices for Chest Waders RRP \$299

Hamills Price  
**\$199.00 \***



#### Fleece-lined wading socks

- 3mm premium quality neoprene

Hamills Special  
**\$39.95 \***

\* Special introductory price. Product due late April/May. Phone 0800 270 222 to reserve your once only introductory price. 7 day money back guarantee if not 100% satisfied. \$7.00 P&P N.Z wide

Excellent shootability

High Floating



#### “Scoop purchase”

Ultra 3 floating flyline

- AST coated.
- “N.Z No1 flyline”
- Buckskin or olive
- WF 6# 7# 8# 9#

Usually

~~\$159.00~~

\$5.00 P&P N.Z. wide.  
Offer while stocks last  
or 31/5/03

Hamills Price  
**\$99.00**

TOLL FREE 0800 270 222

HAMILLS HAWKES BAY  
106 Nelson Street, Hastings  
Phone 06 878 7177

HAMILLS ROTORUA  
1271 Fenton Street, Rotorua  
Phone 07 348 3147

HAMILLS TAURANGA  
53 The Strand, Tauranga  
Phone 07 578 0995

HAMILLS CHRISTCHURCH  
575B Columbo St  
Phone 03 377 5090

# Evening Dry Fly Fishing on Taupo Rivers

by Dave Hart

*Dave is the Taupo Fishery Area Ranger based in Taupū*

One of the biggest misconceptions held by anglers fishing at Taupo is that the river fishing season ends with the onset of spring and doesn't start again until the next year's spawning runs begin. Those anglers who have paid attention to the trend of large late spawning runs in recent seasons have been rewarded with some excellent fishing through October and November, but still the perception had largely remained that river fishing at Taupo was a winter affair only.

This summer the myth has truly been dispelled with large numbers of anglers out on Taupo rivers for the evening rise. Where last summer saw a bumper cicada hatch, providing anglers with some excellent fishing using large terrestrial patterns during the day, this year the focus of attention has been on fishing the reliable and often spectacular evening hatches.

The evening rise may have been particularly prolific this summer due to the large number

of fish still in the river after spawning. In addition, the stable flows over recent months have favoured both fish and insect production but nevertheless a strong evening rise is a feature of most summers, especially on the Tongariro River.

A number of factors combine to influence why the evening and after-dark rise can be so much more productive than fishing the same water during the day. Firstly, the sheer quantity of food that becomes available during a massed insect hatch is bound to be exploited by the fish and a virtual guarantee that those fish present in a pool will be in feeding mode, and hopefully easier to catch, for the duration of the hatch. While the topic of streamside entomology is quite fascinating in itself, a basic understanding of what is happening on the water is sufficient for the average angler to fish the evening rise successfully.

Aquatic insects spend the vast proportion of their lives in the larval or nymph stage before migrating to the surface or river edge







*Ideal locations to fish the evening rise in the lower and upper Tongariro River.*

*Photos: Dave Hart*

and completing their metamorphosis into winged adults. The time spent in the nymphal stage varies considerably between species, even closely related species, and can range from six months to two years. Generally speaking though, the life cycle is repeated annually with breeding activity concentrated mostly in the warmer summer months.

While midges make up an important food source for juvenile trout and to a lesser extent adult fish in Taupo rivers, it is the mayflies and caddis which form the mainstay of hatching activity and subsequently food for the trout. Mayflies will hatch sporadically during the day and early evening but often lack sufficient numbers to provide a sustained rise and period of feeding from the trout. For the evening angler it is the caddis flies which form the bulk of the surface insect activity, providing a long sustained "hatch" lasting from dusk until well into the night. Generally it is this hatch that anglers target, but having said that, on occasions it is more productive to fish a mayfly imitation particularly early in the evening before switching to fishing a caddis pattern as it gets darker.

Caddis activity is greatly influenced by weather, with warm windless evenings providing the most ideal conditions for the adult flies to mate before the females return to the

surface of the water to deposit their eggs. Interestingly the term "hatch" is often a misnomer when examining what the insects are actually doing. Correctly used, the term describes the period when the nymphs rise or crawl to the surface where the winged adult will emerge from the split husk of its former stage to take to the air. The term can cause confusion, often being used to describe virtually any surface insect activity, including when adult flies are either returning to the water surface after mating to lay their eggs or when spent flies are falling to the water as spinners. As trout may feed on the insects at every stage of both the hatching and subsequent mating process, the hopeful angler needs to discern what is actually going on in order to both select and fish a fly pattern successfully.

Coinciding with this proliferation of food is the second benefit of evening fishing which is falling light. Fish which previously were either easily spooked or holding in deep water gradually lose the natural caution exhibited during the day and move up closer to the surface or into the shallows to feed. This is particularly evident in the lower Tongariro where the large brown trout that are so notoriously difficult to catch during the day begin feeding actively. These fish can be targeted by dry fly after dark, although the snags and obstructions in this part of the

river make hooking these fish only a small part of the challenge.

For the angler new to this style of fishing the first recommendation is to check out the pools you intend to fish during the day. A quick reconnoitre during daylight can identify good places to cast to and land fish from, snags or obstructions to avoid that will not be visible at night, and also when targeting browns a chance to spot where some good fish are lying so you can watch for them to begin feeding later on. Remember that where the fish feed may be a little distance from where they hold during the day. Check your back-cast area and in areas such as the lower Tongariro with steeper banks consider whether a long-handled landing net may be needed. Don't attempt to fish an area that will require wading. Apart from serving to spook the fish, which will often be feeding both very shallow and close to the bank, wading rivers at night is downright dangerous and strongly discouraged. Carrying a spare torch is also recommended as locating tracks and navigating a safe route back to the car is no fun in the dark.

While it's a relief to leave the waders at home, make sure you kit yourself out with long clothing and apply a thorough coating of industrial-strength insect repellent, as accompanying the caddis each evening are a swarm of mosquitoes that need to be experienced to be believed. These hungry hordes

do ease off after night falls while the fishing remains hot so don't be put off.

As with all methods of fly fishing the type of flies used and the way they are fished are critical elements of success, and can vary both in time of day and from early to late season. In late afternoon and early evening casting upstream and fishing the traditional drag free drift will certainly pick up trout taking mayflies. Popular mayfly patterns include such standards as the Twilight Beauty, Adams and Royal Coachman. However, this technique is not so suitable to imitate the evening caddis activity. Instead, the use of a soft-hackle wet fly fished behind a bead head nymph and swung around downstream in an imitation of an emerging caddis nymph can be extremely effective. Take a look at the caddis flies on the water and observe their action to see what you will need to imitate. When actually hatching, the caddis will emerge from the nymph husk and rapidly make their way to land (and who can blame them?) forming a tiny V-wake in the water. Observe them in the late evening and you will see the V-wakes skittering apparently everywhere, as the females post-mating swim across and even upstream of the current releasing their eggs into the water. Anglers fishing a sedge pattern effectively will cast across the current and slightly downstream, allowing the swing of the line and fly to replicate the surface swimming action of the natural. At times it may be

*Immature rainbows make up a significant part of the evening catch.*

*Photo: Sporting Use, Turangi*





THE LAKE TAUPO PROMOTIONAL ASSOCIATION IS PROUD TO PRESENT THE

Lake Taupo International

**TROUT FISHING**  
Tournament



**Over \$150,000 in prizes**

**Thursday 24th April to Saturday 26th April 2003**

Tongariro North Domain, Taupo and Tongariro Chartered Club, Turangi



**MIGHTY RIVER POWER**

**Bigger & Better Prizes  
Carnival Atmosphere, Plus A Brand New Venue**



Central Motor Group Ltd. LIMITED

FALCON

# Tournament Rules and Conditions 2003

- 1 FISHING AREA** is limited to Lake Taupo, the rivers and streams running into its shores, plus the Waikato River down to Huka Falls, as designated in your licence. Note: below the falls is excluded, as is Lake Otamangakau.
- 2 FISHING METHOD AND TACKLE** All legal methods and tackle as defined under the Lake Taupo Fishing regulations. A fish will be disqualified if: (a) there is failure to comply with the Lake Taupo Fishing Regulations (b) any person other than the angler touches any part of the rod, reel or line while the fish is being played.
- 3 ELIGIBILITY** All anglers must hold a Taupo Fishing Licence current for the days of the tournament. Licences will be available at registration. **If you already have a current licence, please bring it with you to registration.** Tournament judges and DOCTaupo Fishery Area staff involved with the tournament are not eligible to enter the tournament. Sponsors may enter, but not win their own prizes. In such event, the prize will be awarded to the runner up.
- 4 RECORDING** All fish caught during the tournament will be measured and recorded for Department of Conservation information. The decision of the judges will be final.
- 5 REGISTRATION** From 3pm Wednesday 23rd April 2003 at The Tongariro North Domain, Taupo and The Tongariro Chartered Club, Turangi. Postal registration is strongly recommended. Entries in before 9th February will go into a draw to win fishing and/or outdoor equipment to the value of \$500.
- 6 ENTRIES** will be accepted up to 3pm on Wednesday 23rd April. Late entries may be accepted up until Thursday 24th at 3pm.
- 7 BRIEFING** Commences at 7pm Wednesday 23rd April at The Tongariro North Domain and The Tongariro Chartered Club. Any amendment to rules and other details will be announced at that time.
- 8 FISHING HOURS** 5am on Thursday 24th to midday on Saturday 26th inclusive, except that no person shall fish between the hours of 12 midnight and 5.00am as defined in the Taupo Fishing regulations.
- 9 VENUES AND WEIGH-IN HEADQUARTERS** Fish may be weighed in at either the Tongariro North Domain or The Tongariro Chartered Club on Thursday 24th and Friday 25th from 5.7pm and on Saturday 26th from 12 noon 2pm at The Tongariro North Domain only.
- 10 THE ORGANISING COMMITTEE RESERVES THE RIGHT TO RETAIN AND/OR DISQUALIFY ANY FISH ENTERED IN THE TOURNAMENT.**
- 11 PRIZEGIVING** commences at 3pm on Saturday 26th April at The Tongariro North Domain, Taupo.
- 12 PRIZES ARE NOT TRANSFERABLE OR REDEEMABLE FOR CASH**
- 13 FISH CAUGHT WILL BE ELIGIBLE FOR ONE PRIZE ONLY** in the individual angler category. All fish are then eligible for inclusion in the teams prizes.
- 14 CORPORATE PRIZE** for sponsors. Teams may have any number of anglers entered. Cost is negotiable with the organiser. The winner is decided on the heaviest three fish caught by the team. Sponsors are not eligible for other categories. Corporate category only.
- 15 THE JUDGES DECISION IS FINAL** and no correspondence will be entered into
- 16 VEHICLE:** Adult anglers only eligible for the draw. One name will be drawn and that angler will be asked to draw out one of 100 envelopes. Only one envelope will contain the vehicle prize. The angler must be at the venue for the draw. No other person may take the name of the angler called. Proof of identity may be required.





# Support

- 1 Fly fishing entries are for individuals and teams for fly fishing.
- 2 Teams events are for TEAMS FISHING FROM THE SAME BOAT by jig, trolling or spinning methods.
- 3 Spin fishing from the shore or jigging is considered. Please see your fishing licence for details.
- 4 All entrants will weigh-in and record their fish automatically be catered for.
- 5 For this tournament, only fish measuring 45cm or more are eligible to be weighed-in.
- 6 All rulings made by the tournament committee are final.
- 7 Rules are subject to change. Such changes will be notified in writing.
- 8 Entering the tournament gives the organiser the right to use your name for advertising and publicity purposes.

# PROVIDE

## JUNIORS PRIMARY

- Heaviest rainbow fly 1st
- Heaviest rainbow fly 2nd
- Heaviest rainbow t/s 1st
- Heaviest rainbow t/s 2nd
- Best condition factor fish

## JUNIORS SECONDARY

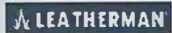
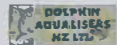
- Heaviest rainbow fly 1st
- Heaviest rainbow fly 2nd
- Heaviest rainbow t/s 1st
- Heaviest rainbow t/s 2nd
- Best condition factor fish

## WOMEN

- Best trout by a woman
- Best condition factor fish
- Heaviest rainbow fly 1st
- Heaviest rainbow t/s 1st

## TEAMS

- Aggregate weight 6 fish, 2 man team fly 1st
- Aggregate weight 6 fish, 2 man team fly 2nd
- Aggregate weight 6 fish, 2 man team t/s 1st
- Aggregate weight 6 fish, 2 man team t/s 2nd
- Aggregate weight 9 fish, 3 man team t/s 1st
- Aggregate weight 9 fish, 3 man team t/s 2nd



# and Conditions 2003

# Supporting N

nd streams running into its shores, plus the Waikato River  
ote: below the falls is excluded, as is Lake Otamangakau.

nd tackle as defined under the Lake Taupo Fishing regulations.  
mply with the Lake Taupo Fishing Regulations (b) any  
e rod, reel or line while the fish is being played.

licence current for the days of the tournament. Licences  
a **current licence, please bring it with you to registration.**  
ff involved with the tournament are not eligible to enter  
their own prizes. In such event, the prize will be awarded

will be measured and recorded for Department of  
s will be final.

03 at The Tongariro North Domain, Taupo and The Tongariro  
ly recommended. Entries in before 9th February will go  
t to the value of \$500.

23rd April. Late entries may be accepted up until Thursday

at The Tongariro North Domain and The Tongariro Chartered  
l be announced at that time.

on Saturday 26th inclusive, except that no person shall  
as defined in the Taupo Fishing regulations.

y be weighed in at either the Tongariro North Domain or  
Friday 25th from 5-7pm and on Saturday 26th from 12

## HT TO RETAIN AND/OR DISQUALIFY ANY FISH ENTERED

April at The Tongariro North Domain, Taupo.

## E FOR CASH

ONLY in the individual angler category. All fish are then

ny number of anglers entered. Cost is negotiable with the  
ee fish caught by the team. Sponsors are not eligible for

vidence will be entered into

One name will be drawn and that angler will be asked to  
will contain the vehicle prize. The angler must be at the  
ame of the angler called. Proof of identity may be required.

- 1 Fly fishing entries are for individuals and teams of two. There are four fly fishing.
- 2 Teams events are for TEAMS FISHING FROM THE SAME AREA OR THE SAME BOAT by jig, trolling or spinning methods.
- 3 Spin fishing from the shore or jigging is considered to be the same. Please see your fishing licence for details.
- 4 All entrants will weigh-in and record their fish as individuals. If automatically be catered for.
- 5 For this tournament, only fish measuring 45cm (from tip of snout) will be weighed-in.
- 6 All rulings made by the tournament committee will be final.
- 7 Rules are subject to change. Such changes will be announced.
- 8 Entering the tournament gives the organiser the right to use photos for advertising and publicity purposes.

## P R O V I S I O N S

### JUNIORS PRIMARY

Heaviest rainbow fly 1st  
Heaviest rainbow fly 2nd  
Heaviest rainbow t/s 1st  
Heaviest rainbow t/s 2nd  
Best condition factor fish

### JUNIORS SECONDARY

Heaviest rainbow fly 1st  
Heaviest rainbow fly 2nd  
Heaviest rainbow t/s 1st  
Heaviest rainbow t/s 2nd  
Best condition factor fish

### WOMEN

Best trout by a woman  
Best condition factor fish  
Heaviest rainbow fly 1st  
Heaviest rainbow t/s 1st

### TEAMS

Aggregate weight 6 fish, 2 man team fly 1st  
Aggregate weight 6 fish, 2 man team fly 2nd  
Aggregate weight 6 fish, 2 man team t/s 1st  
Aggregate weight 6 fish, 2 man team t/s 2nd  
Aggregate weight 9 fish, 3 man team t/s 1st  
Aggregate weight 9 fish, 3 man team t/s 2nd

Aggregate weight 1st  
Aggregate weight 2nd

### OPEN

Best Trout of the Tournament  
Heaviest rainbow fly 1st  
Heaviest rainbow fly 2nd  
Heaviest rainbow t/s 1st  
Heaviest rainbow t/s 2nd  
Best condition factor fish

### OVERSEAS

Best trout by an overseas angler  
Best condition factor fish  
Heaviest rainbow fly 1st  
Heaviest rainbow t/s 1st

### CORPORATE PRIZES

CLOSEST TO AVERAGE WEIGHTED IN BY AN INDIVIDUAL

CLOSEST TO AVERAGE WEIGHTED IN BY A TEAM



SAC

S LTD





# ENTRY FORM



Taupo, Thursday 24 - Saturday 26 April 2003  
(Registration Wednesday 23 April 2003).

ONE ENTRY PER ANGLER. Photocopies Accepted. Please Print Clearly.

NAME First:..... Last:.....

ADDRESS:.....

.....(Please use your own address, not c/-)

PHONE:..... MOBILE:.....

OTHER/EMAIL:.....

## TEAM ENTRIES:

NUMBER IN TEAM: TWO  THREE  FOUR

TEAM NAME:.....

TEAM CAPTAIN:.....

## OTHER:

MALE  FEMALE  PRIMARY STUDENT 5-12 YRS

SECONDARY STUDENT 13-17 YRS

I WILL REGISTER AT: TAUPO  TURANGI

## FEES (Incl GST)

Single Adult Entry: \$70

Single Junior Entry: Primary 5-12 yrs \$10

Secondary 13-17 yrs \$15

Team Entry each adult: \$95

Team Entry each junior primary: \$35

Team Entry each junior secondary: \$40

TOTAL: \$.....

Receipt Required YES  NO

(No receipt issued unless requested)

Please ensure you bring your licence with you when you register.

Please make cheques payable to:

**"FISHING TOURNAMENT 2003"**

and send to

P.O. BOX 1635, TAUPO 2730, NEW ZEALAND

For further help contact the Organiser on Phone/Fax: 07 377 3026

Mob: 025 215 0416 or E-mail: [organiser@paradise.net.nz](mailto:organiser@paradise.net.nz)

tes

prize categories for teams of three and

THE SHORE FOR FLY FISHING OR FROM

spinning from a boat for event purposes.

ants are members of teams, this will

fork or 'V' of tail) and above will be

briefing following registration.

raphs of anglers taken during the

O N A L

h, 4 man team vs 1st  
n, 4 man team vs 2nd

ment

nbow fly 1st  
nbow vs 1st

is angler

WEIGHT OF ALL FISH  
OR ANGLER

WEIGHT OF ALL FISH  
OR ANGLER

# Prize List 2003

D HILL



Spider Web  
INTERNATIONAL

Photography Sponsored by  
**VOLCANIC TROUT™**



**LION RED**

FERNSHAW NEW ZEALAND

ROMARIZ  
ESTD 1850  
PORT - PORTO

PRO-AD  
DESIGN

CONTINENTAL  
HEAVY  
COMMERCIALS LTD

FURNWARE NEW ZEALAND



SACRED HILL



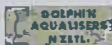
Hand Crafted Wine

MIGHTY RIVER POWER

Spider Web  
INTERNATIONAL



Arano  
Juice  
"Ask for it by name"



LEATHERMAN

KIWI LURE  
PROUDLY MADE IN NEW ZEALAND

KISFM  
93.5  
TAUPO'S BEST MUSIC



hukaJET  
NEW ZEALAND

FLY & GUN  
Hunting & Fishing  
NEW ZEALAND



Photography Sponsored by  
VOLCANIC TROUT



In the 26th Annual Mighty River

BIG FISH  
BIG  
THIS A

Reel in the rewards to

WIN a new Ford Falcon  
in the Mystery Envelope  
form now!

WIN a trip for two to NZ  
luxurious Hotel Le Lago  
fish weighed in by adult a

WIN a 2.4 metre dinghy  
motor from Trev Terry M  
weight of all fish weighed

Innovative rules  
make up a significant  
part of the event

Photo: Sports  
Turangi

Come to the great night  
the Tongariro C

Wonderful food and bar with great prizes  
lessons, fly tying demonstra

Spot prizes every night from

This year's tournament is

www.ta

REEL PRIZES ● R

Design and artwork produced by PRO-AD DESIGN, www.pr



River Power Lake Taupo International Trout Fishing Tournament.

# FISH WILL CATCH BIG PRIZES ANZAC WEEKEND

Participate in this tournament with over \$150,000 in prizes to be won!

Win a Falcon XR6 valued at \$49,900 from **Central Motor Group** by participating in a raffle draw. You have to be in it to win it, so fill out the entry form.

Win a flight to Noumea flying courtesy of **Air Calin** and staying at the **Marina Lagoon** by catching the closest to the average weight of all adult anglers.

Win a Yamaha outboard valued at \$1900 complete with 2HP Yamaha outboard from **Marine** by bringing in the fish closest to the average weight of all anglers caught in by junior anglers.



Enjoy the great new venue on the Tongariro Domain in Taupo or the Taupo Chartered Club in Turangi for a weekend of fun for the whole family!

Great prices - open all day. Continuous and informative fishing videos, casting demonstrations and static displays make this a real celebration of fishing.

Starts from 5pm and watch the Super 12 rugby games on the BIG screen TV!

This event is a real winner and not to be missed! Enter NOW!!!

For more information visit [www.taupotroutfishingtournament.org.nz](http://www.taupotroutfishingtournament.org.nz)

► REEL ATMOSPHERE ● REEL FISHING

[www.pro-ad.co.nz](http://www.pro-ad.co.nz)

the fly, at times sound may be critical to a take and keeping in touch with the fishing fly is critical to avoid a miss. Similar to other forms of fly fishing the leaders used can be quite important about deterring the fish, and if you are snagging or targeting the large trout on the Tongariro a strong leader is

It is important to take note of the weather when planning an evening's fishing. As the weather becomes more serene, calm, warm evenings are more likely to have high insect activity, cold squally evenings may shut it down completely. A major flood will scour much of the riverbed and many of the fish out of



In the 26th Annual Mighty River Power Lake Taupo International Trout Fishing Tournament.

# BIG FISH WILL CATCH BIG PRIZES THIS ANZAC WEEKEND

Reel in the rewards this tournament with over \$150,000 in prizes to be won!

WIN

a new Ford Falcon XR6 valued at \$49,900 from **Central Motor Group** in the Mystery Envelope draw. You have to be in it to win it, so fill out the entry form now!

WIN

a trip for two to Noumea flying courtesy of **Air Calin** and staying at the luxurious **Hotel Le Lagon** by catching the closest to the average weight of all fish weighed in by adult anglers.

WIN

a 2.4 metre dinghy valued at \$1900 complete with 2HP Yamaha outboard motor from **Trev Terry Marine** by bringing in the fish closest to the average weight of all fish weighed in by junior anglers.



Come to the great new venue on the **Tongariro Domain in Taupo** or the **Tongariro Chartered Club in Turangi** for a weekend of fun for the whole family!

Wonderful food and bar with great prices - open all day. Continuous and informative fishing videos, casting lessons, fly tying demonstrations and static displays make this a real celebration of fishing.

Spot prizes every night from 5pm and watch the Super 12 rugby games on the BIG screen TV!

**This year's tournament is a real winner and not to be missed! Enter NOW!!!**

[www.taupotroutfishingtournament.org.nz](http://www.taupotroutfishingtournament.org.nz)

**REEL PRIZES ● REEL ATMOSPHERE ● REEL FISHING**





*A selection of suitable caddis fly patterns*

*Photo: Dave Hart*

necessary to vary the angle of the cast in order to achieve the correct speed of the fly as both line and leader swing until the strikes of fish indicate the desired action has been achieved.

For choice of fly a number of caddis and sedge fly patterns are suitable. The classic deer hair patterns of caddis flies, stimulators and even large muddler minnows can all be used with success as can many of the more traditional 'small wets'. If you don't have any takes after a few swings of the fly try varying the speed of the swing, and the size of the fly until you hit the right combination. Where early in the evening and to a limited extent at night the fish will be

seen taking the fly, at times sound may be the only key to a take and keeping in touch with the swinging fly is critical to avoid missing them. Similar to other forms of night fishing the leaders used can be quite heavy without deterring the fish, and if fishing around snags or targeting the large browns of the Tongariro a strong leader is essential.

It is critical to take note of the weather conditions when planning an evening's fishing. Whereas calm, warm evenings encourage insect activity, cold squally evenings may shut it down completely. Similarly a major flood will scour much of the insect life and many of the fish out of

**[www.sportinglife-turangi.co.nz](http://www.sportinglife-turangi.co.nz)**

**SPORTING LIFE** Lake Taupo/Turangi  
Ph 07 386 8996 • Fax 07 386 6559

the river, slowing the evening rise for the remainder of the summer.

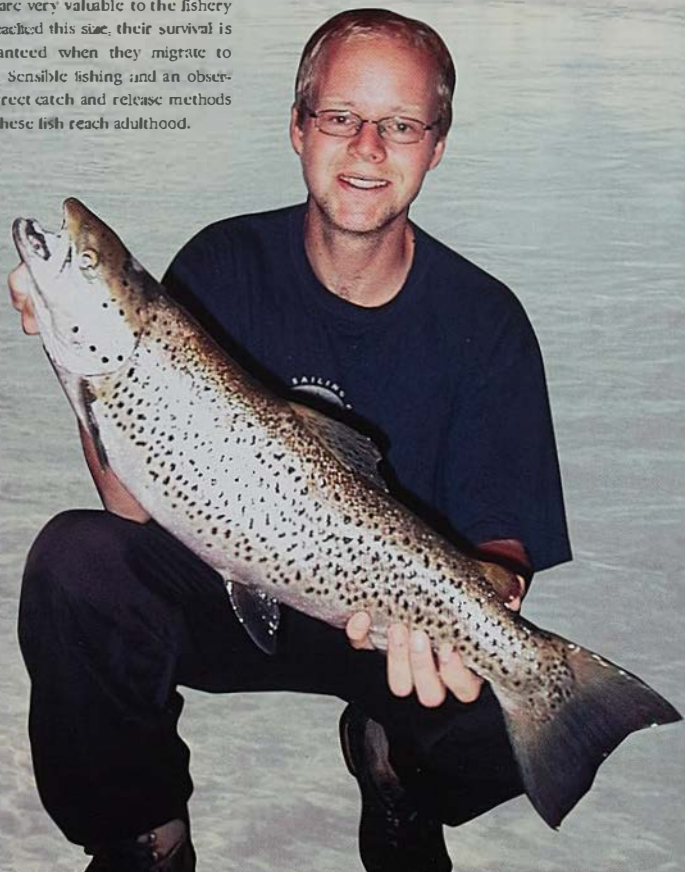
Anglers used to seeing few people on the river during the day over summer can be quite taken aback to arrive at a pool in the evening and see how many rods are present. As with winter fishing on the river, observing angler etiquette is important. Remember the basics and before moving into a pool where other anglers are already present, ask if it's okay and where you should come in. If you arrive to find a pool is clearly full, move on and find somewhere else. Often where one angler cuts in front of another the act is due to ignorance rather than intent. Politely but firmly explaining the etiquette will almost always resolve the situation and prevent a new angler from repeating the mistake.

An important consideration of evening dry fly fishing at Taupo is conservation of juvenile fish. Typically a high proportion of fish caught during evening fishing will be juveniles, particularly during the early evening period before the larger fish become active. These trout are very valuable to the fishery as, having reached this size, their survival is almost guaranteed when they migrate to Lake Taupo. Sensible fishing and an observance of correct catch and release methods will ensure these fish reach adulthood.

Remember to observe the basic rules!

- land the fish quickly to reduce stress
- keep the fish supported upside-down in the water while you unhook it. Don't drag it flapping up on to the rocks or sand
- don't put your fingers into the gills or squeeze the body of the fish while unhooking it
- use forceps or needle-nose pliers to facilitate quick removal of the hook
- hold the fish gently facing upstream and allow it to recover and swim away
- consider using barbless hooks

The evening rise is quite different to fishing for migrating spawners in the middle of winter. The fish are not as big but the high catch rates, combined with a mild summer evening, can make for a very memorable experience.



*Pascal Vonlanthen with a typical Tongariro brown trout taken during the evening rise*

*Photo: Dave Hart*



# The Fishing Season – Good Reports from Western Bays

A report from the "good old days" though it could just as easily be 50 years later:

Reprinted from "Taupo Times", Vol 1, No 1, Wednesday, January 15, 1952

Reports indicate that fishing in the western bays to date has been better than for a number of years past. In general, catches have been larger than last season. There has often been a proportion of spent fish to be put back but the numbers taken in good condition have made up for this.

The larger catches have been taken by both fly fishermen and trollers, and there appears to have been a definite increase in the number of small maiden fish in good condition. For some years past it has been usual for the fishing to be very hard by early January, or even late December, so

that parties have often taken one or two fish only and blank days have been common. To date this season this has not been the case.

The lake level is higher than last year and the river mouths have thus been deficient in current, but fly men have been able to take fish from the beaches adjacent to the mouths. With the fall in lake level probably as the season progresses it is likely, judging from the number of fish now being taken that the mouth fishing will be better than last season.

By Mr Ralph H Ward.

## WALRUS THERMAL WADERS

Walrus thermal waders are designed to be totally waterproof, warm and comfortable.

**Waterproof:** all seams are cross-link bonded and taped inside and out. Each wader is air pressure tested before leaving the factory.

**Warm:** Walrus closed cell neoprene with its thousands of tiny sealed air bubbles is engineered to provide excellent thermal insulation and protection.

**Comfortable:** flexibility and elasticity combined with a plush pile lining add to the comfort and make the waders easier to take on and off.

**Durable:** all Walrus waders are fitted with cushioned knee pads and have a heavy-duty nylon outer lining to resist abrasion.

Colours: bush green or camouflage.

Walrus waders are individually hand crafted in New Zealand.

For a free brochure or ordering information: phone 09 573 0343, fax 09 573 0782, email info@walrus.co.nz or write to PO Box 11 209, Auckland.



Walrus New Zealand Ltd.  
68a Carbine Road, Mt Wellington.  
PO Box 11 209, Ellerslie, Auckland.  
Ph 09 573 0843 Fax 09 573 0782  
Web site: [www.walrus.co.nz](http://www.walrus.co.nz)

COMFORT AND  
SAFETY ABOVE  
& BELOW THE  
WATER LINE.

- Chest Waders
- Waist Waders
- Thigh Waders

NEW Stocking foot now  
with super comfort  
contoured sock.



Fitted with either  
cleated boots or a stocking foot.



For free brochure on Walrus fill out and mail this coupon:

Name .....

Address .....

Phone .....

# Hunting & Fishing™

NEW ZEALAND™

**sako**  
FINLAND

Fresh new stock has arrived for the roar!



**Hunting & Fishing**  
NEW ZEALAND

Finnlight .....\$2599  
Model 75 Walnut/Stainless .....\$2199  
Model 75 Walnut/Blued .....\$1999

*Weatherby*

## Mark V and New Weatherguard



**Hunting & Fishing**  
NEW ZEALAND

Mark V Ultra Lightweight.....\$3399  
Mark V Stainless Synthetic .....\$2499  
Vanguard Weatherguard-new!  
Stainless/Synthetic.....\$1499  
Blued/Synthetic .....\$1299



**Beretta**  
A TRADITION OF EXCELLENCE SINCE 1526

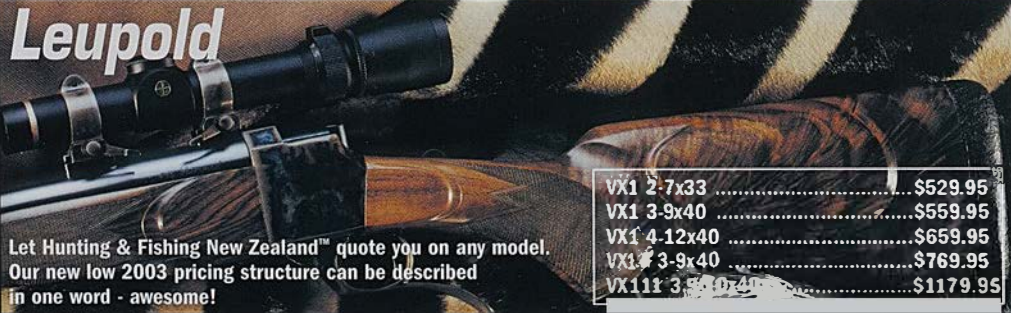
- New models for 2003
- New low pricing structure



### Pricing examples

New ES 100 model from.....\$1599  
Urika 391 Black Synthetic .....\$2299  
Urika 391 Camo .....\$2799  
Xtrema 391 Black Synthetic .....\$2699  
Xtrema 391 Camo.....\$3150

**Leupold**



VX1 2-7x33 .....\$529.95  
VX1 3-9x40 .....\$559.95  
VX1 4-12x40 .....\$659.95  
VX1 3-9x40 .....\$769.95  
VX111 3-9x40 .....\$1179.95

Let Hunting & Fishing New Zealand™ quote you on any model.  
Our new low 2003 pricing structure can be described  
in one word - awesome!

**NEW STORES WHAKATANE AND TAURANGA**

In total 17 specialist stores nationwide. Free Phone 0800 Hunt Fish (0800 486 834)  
Check out our website: [www.huntingandfishing.co.nz](http://www.huntingandfishing.co.nz)



# Hunting & Fishing™

NEW ZEALAND™

## Trout Jigging & Light Tackle (Saltwater) Combos

### Autumn Specials

\*All rigged with backing and 50m of 20lb (10kg) braid!

#### SHIMANO BC200 & SPECTRUM 2-5kg



\* incl. braid and backing

**\$159<sup>95</sup>**

For use in Salt and Fresh water



#### ABU AMBASSADEUR 6500 COMBO

**Abu Garcia**

6500 C3 combo with  
ABU ultracast 5'6" CAM

AWESOME PACKAGE

**\$259<sup>95</sup>**

\* incl. braid and backing



#### INTREPID/CIRRUS COMBO



Rod: 1 Piece graphite composite, under and over bound,  
5'6" long, trigger grip, lure weight rating 10-40 grams,  
line rating 2-4kg.

Reel: Gold anodised spool, dual centrifugal and mechanical brake, anti-over-run system and more.

Ugly Stik "close-out" option!

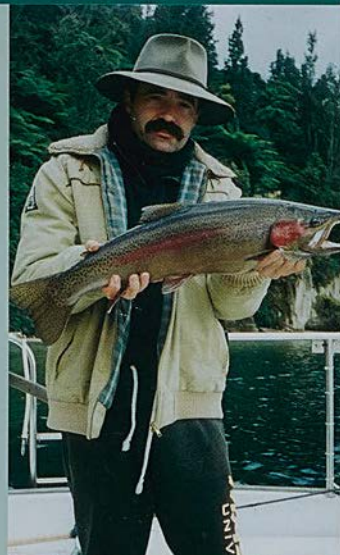
RRP \$229.95

**\$179<sup>95</sup>**

ask in store

**\$159<sup>95</sup>**

\* incl. braid and backing



Trout jigging has been providing some amazing sport this autumn. As lake temperatures stratify, the trout seek the cold deep water that can be jigged with devastating results.

Photo - Alan Sherson, Sportways Waikato Hunting & Fishing New Zealand™.

**NEW CATALOGUE**  
out now

**Call 0800 486 834**

to receive your free copy



**NEW STORES WHAKATANE AND TAURANGA**  
In total 17 specialist stores nationwide. Free Phone 0800 Hunt Fish (0800 486 834)  
Check out our website: [www.huntingandfishing.co.nz](http://www.huntingandfishing.co.nz)





Just another day's  
fishing in New Zealand?

*The Tauranga-Taupo  
River above the  
Rangers Pool.*



by Bernie Baker,  
Bainbridge Island,  
Washington, USA

We had been fishing since morning up the Taurangi-Taupo River, arriving in our present canyon setting in the last hour. This was my first day out fishing since my wife Linda and I arrived in New Zealand ten days earlier. Our monthlong New Zealand stay was not planned as a fishing trip but more to experience the people and places in as much depth as possible.

My guide, Peter Wilson and I were totally absorbed in our passion for fishing. The thousands of casts had at this point, 7:30 p.m. or so, yielded six to eight one pound rainbows and couple of three pound rainbow all on dry flies. My favourite way to fish. The fish were not actually visually feeding on the surface, all the more rewarding to entice their rise.

The river remained low and clear all through the day although Peter mentioned that he thought the river may have risen two to three inches since morning. The Taurangi-Taupo is a small river, easily crossed at any tail out. The rocks were slippery but far less than many streams I have fished back in Washington and Alaska. The flow became more twisted upon entering the canyon usually flowing hard against the limestone cliffs at each turn requiring a constant alternating course for us to wade and fish. Experiencing the river's surround offered me a first-hand introduction to the "bush". There was a trail in the lower reaches that we used to access the river but that had long faded away leaving the river as the only apparent way in and out of the canyon. A couple of hours before we had passed several fishermen moving downstream out of the canyon. We apparently had this beautiful water to ourselves.

While I had no watch, I guessed we had approximately one to two hours to dark and were probably three or four miles from Peter's truck. Off we went downstream hoping to get out before dark while picking up a previously stashed fish and gear along the way. While rounding a turn to the right, Peter noted a large brownie softly rising to a hatch of Mayflies. He asked if I wanted to cast an Adams at this fish. My eyes answered for me as he carefully tied on the fly of choice. Peter continued his task as he stood to my right facing upstream and me facing him. He was just in the motion to release the fly to me when I saw something in his eyes as he changed his focus from his hands to

something upstream. I turned as my eyes registered the same as Peter's.

**DANGER! Fifty yards from us was a bulge or wave of water coming around the bend at an alarming speed.**

It was pushing a vanguard of pumice rock all along its face like some horrific beast. In that second I heard Peter say, "We're in trouble", and me saying "Oh shit". From that moment the concept of time became warped. In the next seconds, we moved down the river on the run as the wave rushed us. I remember in a surrealistic way, seeing my booted feet moving over a gravel bar when in the next instance they disappeared in a muddy torrent to our waist, filling the stream from bank to bank. More terrifying than the volume of water was the speed of the chocolate mess. As we rounded another bend with the raging flood now in front and back of us, it became shockingly apparent that we were going to be trapped against the steep bank on the right. Peter, knowing the river well, wanted to head for a small gravel bar island in the middle of the river 100 yards downstream. There was no time or need for discussion about that choice. By now the river was howling at us and Peter yelling to get centred on that island in case we got swept away. We locked our shoulders with each other's arms in an attempt to become a single fourlegged beast. As we were fighting to get centred on the island below, another unseen wave of water hit us, this time with logs and other large debris rushing by. When that happened I knew that we were fighting for our lives. I fought the terror of dying in the next second as we both put our heads down and focused every particle of energy and concentration to our feet, the moving river bottom and our balance. We pushed our backs against the wall of water as our feet slipped and rolled over the rocks. We were being pushed to a gravel bar with 15 foot high scattered willow trees that were bent downstream. Peter told me later, once we climbed up on the limbs of the 15 foot high bent over willows, that his first look at me showed that I was as white as a sheet. A particularly credible observation.

The likely lapsed time from Peter's upstream glance to this island arrival was probably two to three minutes. In the next few minutes the river rose another foot and



in another few minutes there was no island left, just the willow trees we were perched in

and a rotted five foot long log trapped in the lower branches of the willows. When we started for the island, it was about 25 foot wide and 70 feet long. By our arrival, it had diminished by half. Once on the island my thoughts most focused on getting over the feeling of shock. Thankfully after a few minutes I could feel the shock become more under control. One way to help that process was to avoid looking up river where there was no foreground, just angry water with more logs coming our way. Yes, those logs coming our way .... better not to look. The food's voice was now adding to the visual effects. The rolling and colliding boulders and logs, not to mention the still growing thunder of it all. Unbelievably the creaks chorus could be heard over it all, probably having a good laugh at our frailty.

Now, after just a few minutes of occupancy on the willows, the concept of time started to make another shift from lightning fast to just how long a minute can be. We never discussed nor considered trying to swim the 30 yards of the narrowest channel. One slip and

all the water at our feet would be, in a few seconds, slamming us into the undercut wall of a massive limestone cliff a few hundred yards below. Peter said to me that he did not consider our lives were in danger. While it was good to hear, a lifetime of outdoor experience told me otherwise.

Peter was trying to raise his home on a cell phone while I watched the lichen marks on the willow trunks continue to disappear under water. Of course, I was hopeful that he could get through but couldn't stop thinking about an unsuccessful attempt earlier in virtually the same place. Peter climbed a few feet higher on the limbs that made a very loosely formed mat. It worked! He got through. He first got his young son Richard who was asked to put Amy on. Amy comes on, the connection held. He said, "Amy, listen carefully. We're in a spot of bother here. Please call the rescue helicopter. Amy! Amy! Can you hear me! Amy can you hear me! We're above the Ranger Hole on the Paniraanga Taupo. Please hurry. Can you hear me!"

Because of the river noise, Peter had to yell into the telephone holding it in front of him. Then to listen he had to cover his unused ear with his one hand while holding the telephone tight to his head, all the while trying not to fall out or perch. He listened to what I assumed to be her reply then closed the telephone and said with much relief that she had heard and understood. He said it would take about 10 minutes to drive to the helicopter and another 10 minutes to fly to us. Okay, 20 minutes to wait? We waited and waited and strained to hear a helicopter as it was now getting dark. I kept watching the willow lichen marks still disappearing under the water. After 20 minutes or so and no sign of a helicopter, fear again set in.

**It was then that I had a thought, or more of a feeling, that I probably wasn't going to be alive come morning.**

Then Peter called Chris Jolly's home trying to remember their home number. It worked! Sue Jolly was there. Peter repeated a similar message to Sue. She got it! Sue and her husband Chris were Peter's former employers in a Taupo-based guiding service and had contact with a local rescue helicopter. While we waited, I tried to imagine how a helicopter was going to rescue us.



Turangi - New Zealand  
**ANGLERS PARADISE RESORT**  
Trout Fishing Capital Of The World

**Adjacent to cnr H'way 41 & Ohuanga Rd, TURANGI.**

Quiet, private, spacious ground floor serviced suites, full kitchens & own patios, surrounding an all-year heated swimming pool and hot spa. Licensed restaurant & room service meals. A superb base with plenty to do - there's trout fishing, horse riding, golf, hunting, rafting, trampolining and mountain biking. Fishing Guide services arranged and/or tackle, waders, flies etc for sale & hire.

**Phone or fax us for a quote  
Linda & Terry Drum  
PO Box 130, Turangi.**

E-MAIL: [anglers@reap.org.nz](mailto:anglers@reap.org.nz)  
WEBSITE: <http://www.fishnhunt.co.nz/fishing/anglers.htm>

**FREEPHONE  
0800 500 039  
Ph 07-386 8980  
Fax 07-386 7408**

**AA HOST**  
ACCOMMODATION



It was getting harder to see, but the water was still rising with yet more logs and rolling boulders. Peter's telephone rang. It was the Rescue Centre. They were on their way. Amy had got through but where were we? Peter again repeated exactly where we were. They were on their way. We wait, we listen for something other than the river. Then we started thinking about if the helicopter comes, what we do have to attract their attention. The answer was nothing. Being good fisherman, all our clothes were dark and drab. No flashlights, a possible deadly mistake.

Peter received another call from the Rescue Centre, wanting more information about where we were. By the completion of the call, it was nearly dark and still no helicopter but then just like out of a Hollywood movie, we both heard something. Yes, it is a helicopter way down river coming up. Just as hope was building, we were dropped to the bonom again as we saw the helicopter bank sharply over the hill to the left and disappear. Not only visually, but also from our hearing. Our hope of rescue and survival hit a depressing new low. Then the telephone rang again. It was the Rescue Centre saying that they couldn't find us. "Tell them they just flew over. Come back up the river 800 metres past the Rangers Hole". Seconds later we hear them coming up the narrow river and in an instant they were flying right over us with their lights shining on the river banks, not where we were.

**I know I was screaming and waving my rod even though logic said we couldn't be heard.**

Over the hill and out of sight and hearing once again. We think but did not say, "They didn't see us". Then we heard them coming again but we couldn't see them until they rounded the river bend just below. They were very low, unbelievably below the trees and coming fast and hard right at us. I never thought that they would be able to clear the trees with the rotors but there it was, fifty feet away. Then the concussion hit us causing the willows to swirl wildly. Just one more surprise for the day. Still unbelievable to me, the pilot brought the helicopter alongside the willows like a taxi for his pick-up. The skid stopped not more than six feet away only a few feet above our life support

willows. I then met the wide eyes of the rescuer standing at the open sliding door. No further invitation was required. I scampered across the limbs and felt the reassuring cool metal skid, then a foot up and a warm hand from the rescuer. I hunkered on the floor opposite the door leaving room for Peter. I said, "Thank God and helicopters". No one heard me above the noise. Where was Peter? I looked over the edge to see him breaking down my rod in a not so usual way. Another few seconds we were side-by-side again and in just four minutes our Trooper came into view of the helicopter lights. It was still above the flood since being parked about a quarter of a mile from the main course of the river. We landed and the rescue team left and was immediately out of sight and hearing, giving rise to a mixture of elation and disbelief about what had just happened. We looked at each other while we clasped our hands. Standing there with no sound of a helicopter or evidence of the ongoing flood, it seemed like so many other days' end on the river. Wet, dark and ready to go home.

As we drove north, I thought of the title of the book that Peter suggested I read, as we walked together that morning - *A River Never Sleeps*.

*Postscript*

*Some six months later, as I was fortunate enough to celebrate my 58th birthday, I give much gratitude and amazement to the rescue team and the ability of the pilot to fly a helicopter under the trees in the dark, to allow us to nearly walk on. Nor will I forget Peter's constant concern over my well-being through this ordeal, underscored by whom got on the helicopter first. I believe they made the difference as to whether any of us would enjoy a birthday again. My thanks and admiration goes out to them.*

*Pilot - Peter Masters*

*Rescuers - Chris Jolly & Constable Barry Shepherd*

*The Island during quieter times (bottom right)*

*Photos - Peter Willon*



## An Unusual Catch

While trolling in Jerusalem Bay with two clients on 23 January this year, White Straker III skipper Graeme Cushing pulled a strange looking fish from the water that defied recognition.

The incident occurred when after hooking a trout on one of two rods in use, Graeme had stopped the boat while the client played the fish. The other rod was left out and presumably the lure sank to the bottom to jig slowly along with the wind drift of the boat.

Once the trout had been landed and fishing resumed the other rod was retrieved to reveal a strange-looking fish cleanly hooked through the mouth on a spotty gold king cobra which was almost a third of its own size. Stumped as to the identity of the fish, Graeme and his clients humorously pronounced it to be proof that catfish had finally realised how ugly they all were and had begun mating with trout instead of each other. The fish was kept alive in water and returned to the Launceston's Association booking office to be passed to our fishery staff for a more scientific identification.

Taupo Ranger Dave Hart uplifted the fish and identified it as a mature adult koaro (*Galaxias brevipinnis*) measuring 180mm in length. Koaro are identified as long, slender and somewhat flattened fish with the dorsal fin located close to the tail. Adult koaro are a dull olive green to brown colour with irregu-

lar patterned markings along the body and a distinct dark spot located above the origin of the pectoral fins. Koaro is the second-most common species in whitebait catches around New Zealand and was the predominant fish species in Lake Taupo prior to the introduction of trout. Despite the predatory impact of trout, koaro still exist in good numbers at Taupo. They are a regular catch among the trout fry during our juvenile monitoring programme using minnow traps and by electric fishing, and adult koaro are regularly observed during drift-dives of the rivers.

Technical Support Manager Glenn Maclean described the catch as highly unusual, as mature koaro of this size are rarely recorded in the lake. Koaro spend the juvenile (whitebait) stage of their life cycle in the lake before migrating into the rivers as immature adults, though it appears some large, adult koaro such as this one either remain or return to live in the deep waters of the lake. Adult koaro range from 160mm to 180mm in size with the largest recorded specimen in New Zealand measured at 288mm.

Unfortunately the koaro caught by Graeme was badly embolised and unable to recover to be released. The fish will be mounted for display and educational purposes.

Our thanks go to Graeme and his clients for the information relating to the catch and making the best efforts to keep the fish alive.

*Acknowledgment:  
This article draws  
extensively on  
information presented  
by R M McDowall in  
New Zealand  
Freshwater Fishes:  
A Natural History  
and Guide*

*The adult koaro from  
Lake Taupo.*

*Photo: Glenn Maclean*





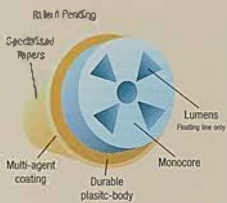
# The new Cortland 555 Series flylines

Over two years to develop, with two years of testing. The outcome... a flymaster's dream.



"The conditions at the Occacia Fly Fishing Champs were quite different to what we had expected. We all adapted well but maybe not quickly enough. We were all very happy with the lines you supplied. I was particularly impressed with the 555 Clear Floater that I had. This 555 was easy to cast, laid out straight and didn't suffer the memory problems. This line made the difference for me and I was able to win the last session that moved our team up a little in the points, but not quite enough".  
- Don Short, Member of the NZ Fly Fishing Team

Cortland Line Company announces the new



## 555® SERIES Fly Lines.

You'll be amazed at the virtually friction-free casting power – and other awesome advantages – offered by these groundbreaking new lines. With the exclusive C5 Process and new Barrier Construction Technology, each 555 SERIES Fly Line is uniquely engineered for a specific situation.

rather than relying on cookie-cutter designs. Each line boasts a specially designed mono core with multiple slickening agents and bonded coatings actually mixed into the line coating. Dirt and water are repelled, UV resistance is enhanced and durability increases dramatically. The 555 SERIES will float higher, cast farther, last longer, and forever change the way you fish.

For your first 555 SERIES experience, choose from several varieties of Weight Forward and Double Taper Floating Lines. With the revolutionary chambered mono core design and long-distance taper. Or, try a crystal-clear super-supple Clear floater – with the proprietary four-lumen mono core – making it the world's highest floating line. The Little Tunny, a 125-400 intermediate line, comes with an extended-power taper, super-sleek coating and camo mono core for near-invisibility. Test cast these may-male wonder: of the fly fishing world at your Cortland Pro Shop today.



## 555 Floating Green Ghostip

In a word, the ANSWER to what serious fly fishers have been asking for since Cortland was first to introduce synthetic flylines. The 555 Floating Green Ghostip combines the visibility of a mica-green coloured line with a crystal clear floating tip section. The perfect fly line for clear water conditions while on or near the surface. This 555 is super high floating, lightning fast and is designed to last a light year! WF 3-6



Sponsors of the NZ Fly Fishing Team

# Kids' Fishing Days, 2003

The fishing pond at the Tongariro National Trout Centre will be open for children to catch a trout on the following days this year:

- Sunday, 13 April
- Sunday, 11 May
- Sunday, 1 June
- Sunday, 13 July
- Sunday, 10 August
- Sunday, 28 September
- Sunday, 26 October

Numbers are restricted to 30 children per hour from 9 a.m. to 2 p.m. Bookings are essential and can be made by telephoning the DOC office on (07) 386 9243 between 1 p.m. and 3 p.m. on any week day.

Tuition is given by volunteers and DOC staff to children aged six to 14 years (inclusive) who can hold and control a fly rod. There is no charge for this. However, a fishing licence is required and a child's day licence can be purchased on site for \$3.00 or children may bring their own Taupo District fishing licence. All other equipment is supplied.

While you are visiting, take the opportunity to look at the new developments at the Tongariro National Trout Centre.

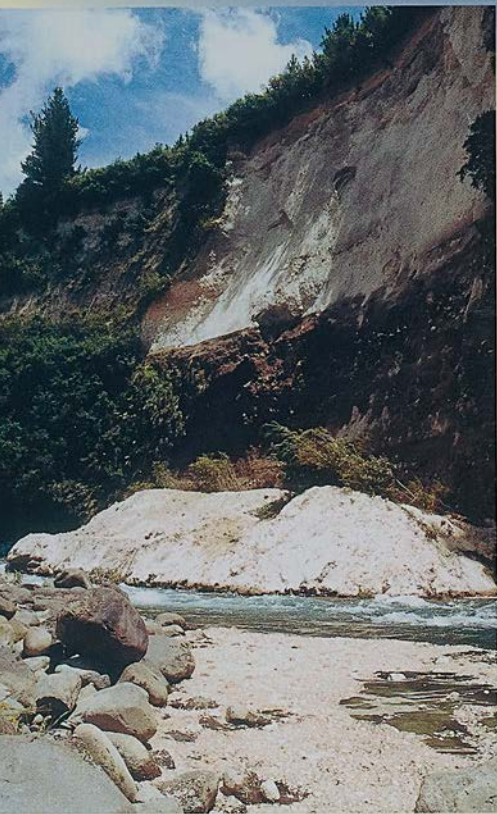
# Distribution of Target Taupo

This *Target Taupo*, issue 42, is the last issue to be mailed to you from the address provided on your 2001/2002 fishing licence.

The July issue will have your address as taken from your current season (2002/2003) licence. If you do not receive the July issue and have purchased a 2002/2003 whole season licence, please telephone our office on (07) 386 9243 and provide your licence number and address to be added to the mailing list. Unfortunately every year there are a number of duplicate copies where we cannot read the address or the address is incomplete or invalid.

To ensure you receive *Target Taupo* please take care filling in the address details on your new season licence. In particular make sure that you have your permanent home address (not your holiday home address) and include the suburb of your town or city.

# Slip in the Tongariro River



*The slip in the upper river.*

January 6 was a beautiful fine day but as Rangers Harry Hamilton and Ian Wilson drove over the Tongariro Prison road bridge, they noticed the Tongariro River was filthy and almost completely covered in a layer of pumice. As there had been no significant rain for over a week they guessed there had been a large slip into the river somewhere upstream. They were right! They found a huge slip had occurred just upstream of the Waipa Stream. A cliff on the true left bank had collapsed sending tonnes of pumice and trees into the river below. The river appears to have been blocked briefly and then cut a narrow channel on the true right side. Meanwhile, staff working at the Tongariro National Trout Centre were a little confused by some of the questions they were asked by several overseas tourists, such as "what are all the floating rocks?" and "how do the anglers see the trout?". A short walk to the river revealed what had occurred and staff were able to reassure the tourists that the Tongariro was most definitely not "always that colour"! It took several hours before the river began to clear, but unfortunately for fishery staff and rafting anglers, it will probably take a large flood to clear one of their favourite upper Tongariro River fishing pools.



*The aftermath at the Tongariro Prison bridge*

*Photos: Ian Wilson*



Visit [www.yamaha-motor.co.nz](http://www.yamaha-motor.co.nz) or call 0800 Yamaha

# POWER OF CHOICE



HIGH PRESSURE DIRECT INJECTION  
**2 STROKE**



**4 STROKE**

Yamaha offer the latest in 2 stroke and four stroke technologies, epitomised by the all new 250 high pressure direct injection 2 stroke and the 225 four stroke... visit your Yamaha dealer now, check out the full range, including 33 four strokes, experience why Yamaha has over 200 outboards on the America's Cup track every day being used by challengers, Team New Zealand, and the event, support and service teams.

**AMERICA'S CUP**  
EXCLUSIVE SUPPLIER 2003

 **YAMAHA**

# Tauranga-Taupo River Back in Old Channel



*The river channel through the quarry is now classed as a tributary and closed to angling*

*Photo:  
Brendon Matthews*

As many of you will be aware, a large flood in December 2001 caused major changes to the Tauranga-Taupo River including the formation of a new channel through the old quarry. This autumn remedial work was undertaken by Environment Waikato to return the river to its old channel and address the ongoing risk of flooding faced by the Rangira and Oruataua residents and local landowners.

The river broke through into the quarry just downstream of the Cliff Pool and formed a series of channels, re-entering the old river in the vicinity of The Crescent. The old river bed between the break-through point and The Crescent was left high and dry. This in turn meant that Kiko overflow (to the south west) which diverted flood flows out of the river at Maniapoto's Pool was no longer effective.

A number of options to address the flooding issues were considered and ultimately agreement was reached between the regional council, Environment Waikato, and the various affected parties as to a suitable plan. The Department of Conservation was involved in this process both as a land administrator and the fishery manager. We favoured the return of the river to its old bed, as long as it was practi-

cal, and that potential fish passage issues in the quarry and Kiko Overflow were resolved.

Work began in late February to remove debris and gravel out of the dry channel and to construct a bund across the break through point into the quarry. In mid-March the river was re-diverted back into its old bed. Large floods will still over top the bund allowing the quarry to act as a temporary reservoir to help buffer the effect of flood peak on the downstream residents. To avoid trout becoming stranded during large floods, the quarry will be landscaped so that flows drain back into the river channel rather than ponding. We believe that the main channel through the quarry will continue to carry water, fed by underground flows, and will be prime spawning habitat. Anglers should note that because this channel no longer links directly back into the Tauranga-Taupo River it is deemed to now be a tributary of the river and therefore is closed to fishing.

The original plan also required a control structure in the main river bed at Maniapoto's Pool to control the extent of flows over the Kiko spillway and into Kiko overflow. Previously this had not been necessary but engineers were concerned that the shortened length of





*Above left: Looking downstream at the bend. Previously the river flowed straight ahead through the quarry but it is now back in its old channel which swings to away to the left.*

*Above right: Standing in the old channel through the quarry looking upstream at the bend.*


*Photos: (pages 35-37)  
Errol Cudby*

river channel and therefore steeper gradient as a consequence of the loss of The Crescent may cause the riverbed to cut down, thereby reducing the overflow across the spillway. However such a structure presents a potential obstacle for fish passage particularly if it scours out downstream. With the uncertainty about whether it was actually needed we suggested trying initially without any structure which Environment Waikato supported. If the river does ultimately cut itself down there are a number of options to address this including some sort of instream structure or even reinstating The Crescent.

At the downstream end of the Kiko overflow, Transit NZ are placing larger culverts under

State Highway 1 to reduce the amount of time water ponds in this area.

Following the re diversion, work will begin on repairing and extending the stop banks along the lower river to limit the areas inundated during floods. Provision will be made for vehicle access across the stop bank on the true left where this extends over Tuki Reserve administered by the Department. Once the work is completed the next step is a revegetation plan developed between the department, adjacent landowners and Environment Waikato. Some of the landowners have previously indicated to us their desire to see such work occur and we see it as a significant opportunity to work together to improve the




## **RIVER WORKS** NEW ZEALAND

### Neoprene Chest Waders

- 5mm Premium quality rapid recovery neoprene
- Rubber boots with really chunky sole for better grip, bonded with 3mm closed cell neoprene INSULATION and FLEECE lined for EXTRA WARMTH and COMFORT.
- Half felt, half chunky grip heel option for SAFER wading also available.
- Neoprene knee guards
- External neoprene chest pocket
- Glued, stitched and taped seams for EXTRA STRENGTH
- Gusseted crotch for extra COMFORT and DURABILITY
- Free repair kit
- Comfortable neoprene shoulder straps
- New boot to wader construction method for longer life

*In stores early May. RRP \$259.95 Inc GST*

**Trade enquiries welcome**  
River Works New Zealand Ltd  
PO Box 22-043 WGTN Ph 04 478 9233  
Fax: 04 478 2352 Email: [robert@maritime.co.nz](mailto:robert@maritime.co.nz)



*The river slowly makes its way down its original channel following redirection.*



lower river. The plan will not only include vegetation of the disturbed sites but also weed control and rationalising fishing access tracks. Now the river is back in its old bed it is an opportunity to identify with landowners where walking and vehicle tracks should and should not go, to improve agreed access ways and to clearly close off inappropriate access across private land.

Currently the owners of the land on the true right of the river (including the quarry) have indicated they are happy for anglers to walk up along the river bank including above the legal right of way. However there is no public access permitted up Hingapo Road (private

forestry road) or up the old vehicle track to the Crescent car park. With the river in its old bed anglers have no reason to walk across the quarry and the owners have specifically requested that people stay out of this area.

In summary on the true right (northern side) anglers can follow the river up on foot from State Highway 1, or on the true left, park in the car park at the end of Tuki Road (which is on DOC reserve) and walk up from there. As long as you stay along the river you may walk as far up the river as you wish.

There have been statements made by various people about the access situation on the river which are factually incorrect and do

*Michel Dedual (left) and Rob Hood seine a small pool left behind after the river was diverted.*





The result. A feature was the number of very large brown trout recovered from the main channel through the quarry.



nothing to improve the situation. As much as anglers don't like to hear it, they have been their own worst enemies with their disregard for the property rights of the private landowners. How many of us would appreciate people walking all over our land, cutting new tracks, pushing down the fences, or driving over our pine trees and creating new

vehicle tracks. The proposed re-vegetation plan provides an opportunity to address these issues so that anglers have suitable parking in the lower river, good foot access upstream and the landowners' property rights are respected.

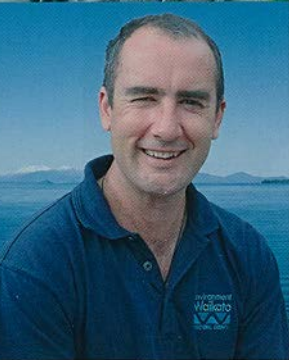




6 beautifully crafted glass coasters presented in a hand made Rinsu stand, ideal for the coffee table. Each coaster is etched with a fly, adding to the fishing ambience of your home or lodge.

Proudly made in New Zealand by skilled craftsman and available from reputable stores or by mail. NZ \$65 incl GST and postage in N.Z.

COASTERCO P.O. Box 251 Kumeu  
 Ph 09-412 6261 Fax 09-412 6265 E-mail [coasterco@clear.net.nz](mailto:coasterco@clear.net.nz)



Mandi and Jon left in February - we wish them all the best in their new positions.

# Fishery Area staff changes

There have been big changes in the Taupo Fishery team over the last few months and a couple more to come.

At the end of last year we were carrying two vacancies following the retirements of Vicki McLean and Bryan Taylor. More recently, Rob Marshall our fishery ecologist left for a job with Environment Waikato, followed soon after by Programme Manager Service Jon Palmer (also to Environment Waikato) and finally Mandi Goflin, Programme Manager Licensing and Community Relations, who has taken up a position with the Department of Corrections.

Having 5 vacancies has provided an exciting opportunity to restructure the team to fit needs identified in a strategic review last year. This new structure will result in an improved skill base and a focus on aspects of our work that needed more attention. In particular, 4 ranger positions will have responsibilities for specific areas of work (monitoring programmes, field operations, compliance and law enforcement, prosecu-

tions) as well as participating in our activities across the board. The new community relations person will be responsible for the Area's public awareness, publications, visitor centre (Tongariro National Trout Centre) and similar activities.

The process of selection and appointment is well underway and we are looking forward to the new staff joining us. Progress to date includes the appointments of Rob Kirkwood as a Ranger, Carolyn Poots as Programme Manager, Service and Mark Venman as Technical Support Officer. By the time you read this we should have appointed a Ranger, Service to manage the fishing licence administration and a Programme Manager. Community Relations will be on board for the start of the new financial year in July. In the meantime we have invited the long-suffering Shirley Oates temporarily back out of retirement to help with licensing and office administration. We'll introduce you to the new faces in the next issue of *Target Taupo*.

## YEAR ROUND HOLIDAY MODE



Artists impression

To be auctioned

**The ultimate in lake living.** Relax in an exquisite home capturing the essence of contemporary living, yet retaining the ambience of a Taupo holiday home!

Architect John Verstappen has captured the mountains to the south and the lake to embellish fine living from expansive decking and subtle attention to detail to create the ultimate in lake living. Offering expansive views and close proximity to the lake front on Rainbow Point this fantastic home will provide numerous opportunities.

Phil Turner

MOB 021 325 010 Office 07-378 1112 A/H 07-377 2262

Taupo Realty Services Ltd MREINZ

**HARVEYS**

MREINZ



# Solid Summer Season

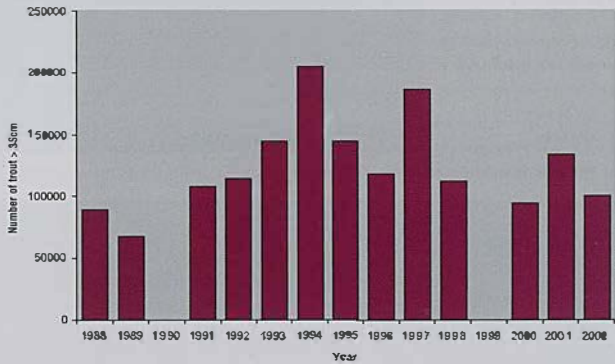
By Glenn Macleod

Overall the fishing on Lake Taupo this summer has been good reflecting the November acoustic estimate of the size of the adult trout population. This survey estimated the population of large trout to be approximately 100,000 fish.

Normally we work on 100,000 trout as being the benchmark for a good summer and subsequent winter of angling. The timing of the survey in late November means that in a typical year, any kelts which have survived spawning will have returned to the lake and are included in the count. However, last year spawning was so late that a significant number of large fish were still up the streams when the count was made. For example 63% of the fish we trapped in the Waipa Stream last year were trapped after 1 September and 22% after 1 November. Therefore the count of 100,000 trout was an underestimate of the total number of large trout in the fishery. A comparison of the November acoustic estimates since 1988 is shown in graph 1.

Graph 1: Acoustic estimate of the number of large trout in Lake Taupo in November from 1988 to 2002

(No data available for 1990 and 1999)



Our angling data for the November to February period reflects that catch rates have stayed relatively high over the whole summer which is unusual (Table 1). Typically the catch rate falls away in January as the fish start to concentrate deeper in the lake out of reach of commonly used deep trolling methods like leadlines. This has occurred to some degree this year but is offset by the success of anglers using other methods (Table 2).

Table 1: Average catch rate (per angler) for anglers interviewed on Lake Taupo November 2002 to February 2003

Month	Catch rate (fish per hour)
November	0.34
December	0.42
January	0.28
February	0.37
Average	0.35

Table 2: Average catch rate by method for anglers on Lake Taupo November to February 2003

Method	Catch rate (fish/hour)	Hours of effort recorded
Shallow trolling	0.37	328
Leadlines	0.18	545
Wirelines	0.31	73
Downriggers	0.39	147
Jigging	0.74	215

In part, the high catch rates through January and February reflect the return of kelt's to the lake, bought in by several small freshes in December. These fish feed ravenously and tend to concentrate around the drop-off where they are easily caught. However, it is also apparent that anglers jig fishing have enjoyed a lot of success.

Table 3: Average catch rate (fish per hour) by method for the period November to February 2001/02 and 2002/03

In table 3 the average catch rate for each method is compared for 2001/02 and 2002/03.

Method	2001/02	2002/03
Shallow trolling	0.47	0.37
Leadlines	0.18	0.18
Wirelines	0.35	0.31
Downriggers	0.47	0.39
Jigging	0.28	0.74

Fishing for smeltling fish around the lake edge was relatively poor last spring due to the late return of kelt's to the lake.

Photo: Brendon Matthews






The reduction in success shallow trolling or harling is likely to be directly linked to the lack of recovering fish in the lake over spring, these fish typically form a significant part of the catch using this method. It is also obvious that anglers have had much more success this year using jigging techniques. We are unsure whether this reflects that jig anglers skill levels are improving or that the fish were more vulnerable to this technique this summer for some other reason. However it is still not a widely practised method. Over the 2001/02 summer only 10 percent of anglers interviewed by our rangers while fishing were using this method and this summer jig anglers still only comprised 14.7% of all anglers on the lake. Interestingly 87% and 82% of jigging anglers in the two years respectively were interviewed at the southern end of the lake. This is consistent with our observations while making aerial counts. Regularly we see concentrations of anglers jigging in the vicinity of the Delta and Tauranga Taupo river mouth but only very occasional jig anglers elsewhere around the lake.

The high catch rates by jig fishers have caused some consternation amongst other anglers. Clearly there is a potential for an increased harvest if these catch rates are maintained and the method does become widely practised. We will monitor this closely but by the same token people are catching fish at a time when most anglers typically find fishing very hard, which is after all one of the experiences we are trying to provide.

Much of the criticism regarding jigging relates to the survival of fish caught and released. However our trial 10 years ago into the mortality of fish caught by different methods indicated that while fish caught at depth suffered greater mortality, the key factor was how fast the fish were brought to the surface. Trout caught jigging tend to come to the surface much more slowly than fish caught on downriggers and so should suffer less mortality. As much as some anglers may not like to hear it, the mortality of fish caught and released on booby flies and the like fished using the heave and leave technique at the nearby river mouths is likely to be greater.

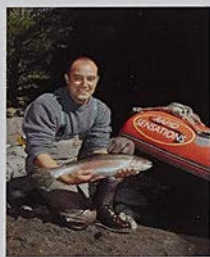

This summer anglers interviewed as part of the routine creel surveys have rated their satisfaction with the size and condition of the fish at 3.3 out of 5, their angling success at 3.3 out of 5 and their enjoyment at 4.6 out of 5. This is on a par with last summer and slightly down for size




**THE NORTH ISLANDS RAFT FISHING SPECIALISTS**  
**ABSOLUTELY ANGLING**

From novice to experts, local or back country locations, we can provide you with the expertise, instruction, equipment and fabulous food.

Single or multi day trips, including helicopter access to those remote locations you've only dreamed about.



Tongariro Book Now  
Mohaka Or  
Rangiteiki Miss Out!

**Phone 0800 35 34 35**

[ian@wilderness.co.nz](mailto:ian@wilderness.co.nz)  
[www.wilderness.co.nz](http://www.wilderness.co.nz)

and angling success compared to the late 1990s. In a large part the rating for the size and condition of the fish is influenced by the number of kelts newly arrived in the lake over Christmas just as occurred the previous summer. The late spawning meant these fish returned to the lake too late to recover condition before the influx of summer anglers.

Over 80 percent of anglers said that nothing detracted from their angling experience on the lake. The most common concern among the remaining anglers was the behaviour of jet skiers and to a lesser degree, water skiers, particularly over the busy Christmas period.

The other feature of the fishing this summer has been the evening rise, especially on the Tongariro. This is discussed in Evening Dry Fishing on Taupo Rivers on page 18. While this is a regular occurrence on the Tongariro in most years, the intensity and extended duration of activity through into February this summer was memorable. This likely reflects the unusually settled flow conditions over recent months which favoured insect and juvenile trout production and the very late spawning which meant there were many more recovering trout in the river than usual for this time of year. This also bodes well for trout numbers in the next couple of years when the juveniles thriving in the rivers at the moment begin to mature.

Catch rates on Lake Otamangakau reflect that this lake has generally fished well once conditions warmed up early in the New Year. The average catch rate measured has been 0.26 large fish per hour or one fish every four hours. This may still seem very low but is significantly higher than typical catch rates recorded in recent years of 0.15 to 0.18 fish per hour (one fish every 5.5 to 6.5 hours). The other feature this year has been the excellent condition of the trout of both species. Amongst the fish we have measured have been several rainbows over 2.7 kg with condition factors greater than 70. It will be interesting to see what comes through the Te Whaiiau trap this winter.

Overall this winter is shaping up well on the Taupo rivers. Given the pattern of very late spawning runs in recent years it is likely that the runs will once again be late. Rather than starting at Easter it may well be more prudent to start later and finish later. Some of the best angling over the last two years has been in September and October. How many of you were still fishing the Taupo rivers then? However it could all change, particularly if we get a more typical winter with regular rain to stimulate the runs. It is all part of the uncertainty of fishing.

● Owen Bailey from Tallisafe shows Ranger Rob Hood a 3.75kg brown trout caught off Cabbage Tree Point, Lake Taupo in late December.

Photo: Ian Wilson







# WAIMARINO RIVER WORKS

*Rebuilding the bund to keep the Waimarino River in its existing channel*

*Photo: Glenn Maclean*

In early February Environment Waikato undertook repairs to a stopbank on the Waimarino River, which closed off an old channel that had previously flowed close to Korohe Pa.

In the early 1990s this channel had been eroding its way towards Korohe and residents were concerned that the river might eventually break out and inundate their houses and property. In late 1994 the channel was closed with a substantial bund and the river returned to an earlier channel on the north side of the flood plain.

The bund is approximately 400 metres downstream from the winter fishing limit and over the intervening years floods have eroded much of it away. Faced with a risk of a future flood breaching the bund Environment Waikato used a maintenance condition in their consent obtained for the earlier works to effect repairs. In the original structure large angular rocks which were brought onto the site were used to anchor the bund. However, this time, finer material from the river channel was pushed against the bund to increase both its height and width. Several large trees which had fallen into the stream just upstream were also removed to improve the river flow and these laid against the bund to further strengthen it.

## TRACKS UPDATE

When you visit for the winter fishing, the successful outcome of our track clearing contract should be evident. The tracks have recently been checked and the work required noted. Contractors have been engaged to begin in March and the bulk of the track clearance and maintenance work should be completed by Easter.

# Smelt Monitoring

When you are focused on hooking a big trout on the lake or in a river around Taupo, it's easy to forget the very small transparent fish the smelt (*Retropinna retropinna*) that are pivotal to the success of trout in Lake Taupo. Without smelt, sustaining a rainbow trout fishery in Lake Taupo would be difficult if not impossible. Although rainbow trout prey on a variety of food items, smelt represent 90% of their diet. Therefore, the growth rate and body condition of trout in the lake is directly proportionate to the abundance and size of smelt.

When trout were first introduced into Lake Taupo the populations of the two fish species (koura and common bullies) originally present in the lake were unable to sustain the level of trout predation and so smelt were introduced from the Waikato River via the Rotorua lakes. The initial introduction of smelt was in 1934 and yearly releases occurred until 1940 when smelt had established a strong self-sufficient population. The success of the introduction is clearly obvious since the trout condition and average size has remained exceptional by any standard since.

Smelt spend most of the year in deep water offshore feeding on zooplankton. In the spring, the adults move into the shallow mar-

gins around the lake to spawn in the sand. The spawning season spreads from November until March when they spawn for the second time.

Smelt populations dynamics are extremely complex. Their populations are cyclic, and a variety of natural factors (like inter-age competition and nutrient levels) determine year-class strength and overall abundance. Smelt younger than one year old are the bulk of the population and their availability is critical, since trout need them for rapid growth.

When smelt are off shore it is difficult to monitor their abundance and size and so to estimate the overall health of the population. However, when they spawn they will come within a few metres of the sandy shoreline where we can easily catch and monitor them using a beach seine net.

We have some good data on spawning smelt abundance along the lake shore for the late 1980s and mid-1990s. But as we pointed out in a recent issue of *Target Taupo*, the water quality of the lake is changing and one of our main concerns is to monitor how smelt will adjust to the new conditions. Therefore we have designed a programme to monitor smelt

*Ranger Rob Hood (left) and Fishery Scientist Michel Notual seine a sample of smelt*

*Photo: Glenn Maclean*







Sorting the catch.

Photos: Glenn Maclean  
and Rob Hood

abundance using the same methodology and sites as were used in 1995 and 1996. Every month five samples (hauls) are taken at each of the three sites around the lake shore, using a eight metre long seine net. The smelt caught in each sample are counted. It sometimes takes a while as numbers can range from a few individuals to many hundreds. A sample of the catch is taken for later analysis which provides information on population structure including age, size, condition, reproductive status, and the timing of spawning. Any juvenile trout or common bullies caught are also counted and released.



Monitoring began in November last year and the results of the first four months indicate that in 2002 smelt concentrated later along the beaches to spawn than in 1995 and 1996. No obvious change in smelt size is so far noticeable, however in December the density of smelt at the northern end of the lake was four times larger than the maximum density we observed in the mid-1990s. It is early to draw any conclusion but nevertheless we are confident that the smelt population is still healthy, contrary to the perception of some anglers.

## PROGUARD TRS WADERS APRONS & ACCESSORIES

- Full range of Stock Sizes. Also made-to-measure, adults, children.
- Excellent Thermal Insulation. Neoprene with jersey knit bonded both sides. Black or Olive Green.
- Hard Wearing. Seams are sealed and taped for extra strength.
- High Quality Gumboots bonded in place - steel cap options.
- Knee pad and Cell phone pocket options.
- Also Neoprene hats and armlies, processing aprons and accessories.
- Full repair service.



Thigh Waders

Waist Waders

Chest Waders

**PROGUARD TRS**

P.O. Box 48, Maungaturoto, Northland, N.Z.

FreePhone: 0800-14-WADERS 0800-14-923 377



7440NC

# TEAM PROFILE

## Peter Morton

Peter Morton has recently joined the Turangi Office of DOC. Following the departure of Cam Speedy, Peter has taken over the role of biodiversity technical support supervisor, and is responsible for co-ordinating the team of biodiversity specialists at the conservancy office.

Peter is not new to DOC's work in the Tongariro-Ōrūpō Conservancy, having spent the last 8 years working for DOC at Whakapapa. In this role he managed the Ruapahu Area's threatened plant and animal protection work, including the Tongariro Forest Kiwi Sanctuary, as well as plant and animal pest control projects.

Having literally started out on the end of a shovel with DOC, as a seasonal track worker during student holidays, this new role represents the latest in a long series of career challenges within DOC. "I'd recommend a career in conservation to anyone who wants to make a difference to the environment we live in. You never stop learning when you're working with nature, and the people drawn to this sort of work tend to be very enthusiastic and dedicated to what they do."

Outside of work Peter spends his time rock climbing and ski-touring. His partner Andrea is also about to start a new job as the head of the science department at Tauhara College. Together with their young son Sam, they will shortly be swapping the bush at Owihango, for the lake at Taupō.





# Taupo Field & Stream Directory

To advertise in the Taupo Field & Stream Directory and reach 12,000 annual fishing licence holders, contact Peter McIntosh on (09) 634 1800

## TAUPO BOAT STORAGE

For larger boats and their accessories in our individual mini-warehousing units. Size 9m x 4.5m by 3.9 stud. Security fenced, individual keypad alarm system, 24 hour access, also out side parking within our security fencing.

Ridgeway Holdings  
130 State Highway 5 (next to Truckstop)  
Mobile: 027 2837145 Fax: 09 238 0701

## Greenstone Fishing



Specialising in:

- Fresh & Saltwater Tackle
- Rod & Waders Hire
- Fishing Licences
- Hunting Permits
- Fishing Guides & Boat Charters

George & Carol Blake  
147 Tongariro Street,  
Taupo



Ph/Fax:  
07 378 3714

After Hours:  
07 378 8188

Mobile:  
025 603 4277

## Braxmere Fishing Lodge



- 5 miles from Tongariro River
- 30 mins from Waikato Showfields
- 2 separate bars with own thermal pools & barbeque
- Licensed barbeque (The Pige) on site conference centre
- 11 self-contained units all have lake views
- Thermal pools • barbeque • drying room/laundry
- Mobile home as well as • Mountain Bike hire
- Hire boats and fishing gear • Fishing & sales available
- Water level monitoring camp • Competitive rates • 24 hour rates

Little Waihi. Tel: (07) 386 8011  
P.O. Box 11, Tokaanu. Fax: (07) 386 7513

## FLY FISHING SPECIALIST



Greg Casley

- \* River or Lake fishing (half/full day)
- \* Specialty Winter Nymphing
- \* Evening / Night fishing
- \* Novice or Experienced Anglers
- \* All Equipment Supplied

Mobile: 021 638 242  
Tel: 07 377 9035 Fax: 07 377 0135

Website: www.nzflyfish.co.nz  
Email: u2fish@taupo@xtra.co.nz

P.O. Box 1585, Taupo, NZ  
Bookings Recommended

## Parklands MOTOR LODGE TURANGI

### MOTEL COMPLEX, CONFERENCE CENTRE, MOTORHOME PARK

31 Comfortable accommodation units set in 7.5 acres of Parkland • Conference Hall and equipment available • 20 pool • Matarama Park and amenities block • Licensed Restaurant and bar • Wheelchair access • swimming pool • Tennis club • Private Spa Pools • Sauna • Games room • Extensive children's play area • Guest laundry • Drying room for skiing & hiking equipment • 100m Golf chipping range • Onsite - fishroom & smokehouse • Ample Boat & Car parking • Private Helicopters welcome • Trout fishing, white-water rafting & deer hunting guides arranged.

CHR. STATE HIGHWAY 04E AND ARAROHU STR. • P.O. BOX 142 • TURANGI • NEW ZEALAND. PHONE: 07 386 7515 FAX: 07 386 7 509  
0800 61000 (0800 455 284) Website: <http://parklands.co.nz>

## Braxmere Fishing Lodge



- 5 miles from Tongariro River
- 30 mins from Waikato Showfields
- 2 separate bars with own thermal pools & barbeque
- Licensed barbeque (The Pige) on site conference centre
- 11 self-contained units all have lake views
- Thermal pools • barbeque • drying room/laundry
- Mobile home as well as • Mountain Bike hire
- Hire boats and fishing gear • Fishing & sales available
- Water level monitoring camp • Competitive rates • 24 hour rates

Little Waihi. Tel: (07) 386 8011  
P.O. Box 11, Tokaanu. Fax: (07) 386 7513

## Creel Tackle House

189 Taupahi Road, Turangi  
Brian Scott: Phone/Fax 07 386 7929

### FLY FISHING TACKLE SPECIALISTS

- Quality fly tying materials
- Hire tackle
- Open 7 days

Central North Island Agents for:



## GUIDED FLY FISHING

on the Mighty Tongariro River & Lake Taupo Tributaries  
Full Tuition & Quality Tackle with

**KEN DRUMMOND**  
PHONE (07) 386 0411  
P.O. BOX 186 TURANGI  
Email: fly@tad@xtra.co.nz  
MEMBER: NZ PROFESSIONAL GUIDES ASSN.

## Bert's Retreat Hatepe, Lake Taupo

Fish the beautiful Hinemaiaia River  
3 bedroom bach to rent  
Phone 06 358 9015  
or 021 461 956  
FISH 546

## TURANGI SMOKEHOUSE and DELI

**Trout Smoking**  
- Just bring it in!  
- Home kill processing available

**Smoked products** - Available to smoke:

- Vanuatu salmon (sex flavoured whole or sliced)
- Chickens (sex flavoured whole or ready to eat)
- Salmon (oil or cold smoked)
- Vanuatu pastrami (sliced & into flavoured packs)
- Beef (sliced & into flavoured packs)
- Vanuatu corned beef (sliced & into flavoured packs)
- Middle eastern (double smoked, superb flavour)

ORDERS: Phone/Fax (07) 386 0235 or A/h (07) 386 8454

## Sportsman's Lodge

- Right on the Banks of the world famous Tongariro River
- Inexpensive riverside accommodation Doubles from \$45 per night
- Large shared Kitchen/dining room with all facilities
- TV lounge with open fire and sun decks
- Fishing Guides available

15 Taupehi Road, Turangi, New Zealand  
Ph (07) 3868-150

## TONGARIRO RIVER RAFTING

Tongariro River Rafting offers you superb nymph and dry fly fishing on isolated water. We supply sumptuous lunch and all transport. Don't just dream, ask for our eight hour wilderness, chauffeured, raft fishing experience. We also run family white water rafting trips.

For Rafting and Raft Fishing in the North Island contact:

**Garth Oakden, Tongariro River Rafting**  
PO Box 281, Turangi,  
Ph: 0800 10 10 24. Fax: 07 386 6445.  
Email: [rafting@xtra.co.nz](mailto:rafting@xtra.co.nz)

## Tauranga-Taupo Fishing Lodge

Lake Taupo • New Zealand  
Right next to the Tauranga-Taupo River

- Motels • Cabins • Camping Ground
- Licensed Restaurant & Bar
- Fish cleaning room & freezer
- Fishing guide available

Ph: (07) 386 8385 • Fax: (07) 386 8386  
Hosts: Keven, Irene, Chris & Rachel

## TARATA FISHAWAY

• ACCOMMODATION • GUIDED OR UNGUIDED FISHING •

Situated in the remote Mokai Valley where the picturesque Rangitikei River meets the rugged Ruahine Ranges, Unique Trout fishing right at our doorstep.

**Location, location, location!** New! River Retreat, Spa Bath, Homeslead, Fisherman's Cottage, Trout Fishing, Rattling, Tramping, Spotlight Salaris, Camp Out's, "Mira" Golf, Clay Bird Shooting.



Your Hosts: Trudi & Stephen Mottock  
 PH: 06 888 0354  
 Fax: 06 388 0934

Email: fishaway@trata.co.nz  
 Web: www.tarata.co.nz



Turangi  
 New Zealand  
 Adjoins State Highway 1

- All standards of accommodation from \$25 per night per person

- Self catering facilities and BBQ areas
- Fire side Bar
- A La Carte Restaurant
- Micro Brewery
- Spa & Sauna
- We'll even cook your catch!

For bookings: Box 174 Turangi 2751  
 PH: (07) 386 7492 FAX: (07) 386 0106

## Kaimanawa Bistro

LICENCED RESTAURANT  
 at the Kaimanawa Lodge, Turangi

*Delicious food  
 for hungry fishermen*

HOSTS: Jim & Rae Magan

258 Taupahi Road  
 Phone 07 386 8709 Fax 07 386 8768  
 Mobile 025 955 230  
 Email jr.magan@actrix.co.nz

FRS 034

## MOTUOAPA MOTOR CAMP

- Lake front camping in quiet bay with boat ramp & marina
  - 56 Powered caravan sites
  - Quiet tent sites
  - Ideal sites for motor homes
  - On-site caravans for hire, fully equipped, bring own bedding
- Facilities include: Kitchen, Dining, TV, Showers, Toilets, Laundry, Fish cleaning facilities, BBQ, Spa pool
- 10 mins to Turangi
  - 30 mins to Taupo
  - 25 mins to ski-fields
  - Permanent sites available



## TURANGI CABINS & HOLIDAY PARK

- Campervans/Caravans
- Tent Sites
- 96 Budget Cabins
- On-site caravans

- Facilities include:
- Kitchens and dining rooms catering for over 100 people
  - Laundries with automatic washing machines, dryers & drying room
  - TV room • BBQ areas • Table Tennis
  - Children's Play Area • Telephone
  - Fish cleaning area & fish freezer
  - Caravan & boat storage

13 Parekaranga Valley Rd  
 Motuoaapa, PO Box 41, Turangi  
 Phone: 07 386 7162

Ohuanga Rd.  
 PO Box 41, Turangi  
 Phone: 07 386 8754

Fax: 07 386 7162

## WINDSOR LODGE

MOTEL/CARAVAN PARK  
 SH 1, Waitahanui, Taupo



- 8 fully self-contained units
- Caravan/campervan powered sites
- Fish cleaning room & Smoker
- 150m from fishing pools
- Wader & rod hire
- Children's play area
- Easy access to lake
- Shop - EFTPOS

Phone (07) 378 6271 Fax (07) 378 6246

## BELLBIRD LODGE



Turangi

Call Clint or Janeve Green  
 for booking or quote.

Ph/Fax (07) 386 8281

belbird@reap.org.nz

Budget priced accommodation, big on comfort and service. Only \$17 per night, guests supply own linen, freezer and fish smoke. Shuttle service to favourite fishing spots. Enjoy one of our free deserts every night. Guides arranged.

To advertise in the Taupo Field & Stream Directory for only \$85 + GST per issue and reach 12,000 annual fishing licence holders, contact Peter McIntosh on (09) 634 1800. Email: peter.mcintosh@fishgamenz.co.nz





# ULTIMATE RIDING MACHINE.



## THE NEW SS700

There's a sportier, more stylized look to the Haines Hunter SS 700. Designed for people who need more lifestyle options from their boat combined with the luxury of increased protection from the elements that the new Sports Sedan provides. The combination of great looks, comfort, handling and room to spare make it easier to enjoy the rewards of being out on the water with family and friends. The handling characteristics

of this boat are the envy of many, providing seamless performance and comfort with a sporting flare of a true thoroughbred. It all adds up to a less strenuous day on the water. Test drive the Haines Hunter SS 700 and experience a new direction in boating.



## HAINES HUNTER

THE SECRET IS IN THE RIDE

# PURCHASE YOUR 2003 DUCK SHOOTING LICENCE

from Outdoorsman and choose one of these  
great products for only

## \$19.95



Resort Chair  
collapsible, with carry bag  
valued at \$39.95



Ridgeline 200 weight  
Polarfleece T Shirt  
valued at \$44.95



offer expires 5th May 2003 or while stocks last

## GUNROOM OPEN

Over 100 new firearms on display. Trades welcome.



Browning Gold Hunter 5 shot Semi Auto



OPEN 7 DAYS

## Outdoorsman Headquarters

EXPERIENCE NEW ZEALAND'S GREATEST  
OUTDOOR OUTFITTERS

[www.outdoorsman.co.nz](http://www.outdoorsman.co.nz) 6 Tarawera Road, Rotorua Ph: 07-345 9333