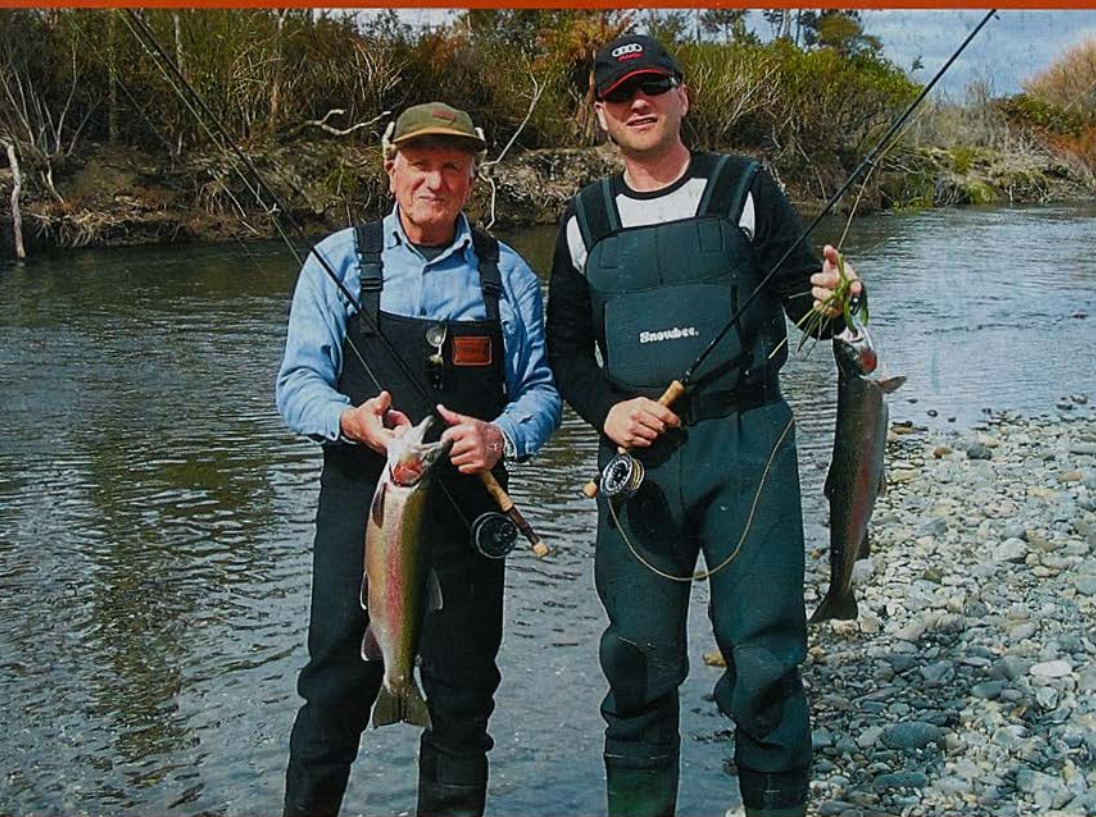


# TARGET TAUPO

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

NOVEMBER 2004, ISSUE 47



Department of Conservation  
*Te Papa Atawhai*



# KILWELL SPORTS

with over 70 years commitment to Sportsmen,  
you could say its more than a passion



**A: FREESTONE WADERS** BY KILWELL  
ballable waders, 72 denier Polyester/Tripac  
with 5mm thickness 3 Ply with reinforced  
Kevlar knee and seat pads, built in gravel  
guard, gravel guard hook, front pocket,  
neoprene stocking wading belt, mesh  
travelling bag. Olive/green colour, small,  
medium, large sizes

**B: PINK LINE™ For River Wading Boot**  
lightweight 601 sets. Mibuck leather and  
nylon upper for quick drying. Quick lacing  
system with strong nylon lace for better fit.  
Removable insole for all day wearing. One  
piece felt outsole with innovative pattern for  
better traction and helps prevent slipping on  
wet or mossy rocks. Aqua Vent System keeps  
sand and pebbles out, while it allows smooth  
walking comfort. Mens Sizes: 8 to 13

**C: KILWELL Deluxe Fishing Vest, Hard  
wearing, quilted collar, multiple pockets  
large rear cargo pocket. S - XXL**

**D: KILWELL Supreme Folding Stripping  
Basket, Heavy duty nylon, velcro detachable  
foam patch for flies, nylon mesh bottom for  
drainage, padded for comfort, collapsible for  
storage plastic basket stiffener doubles as  
37cm ruler**

**E: KILWELL INNOVATION™ Elyrods, A range  
of rods featuring superior rod technology  
stronger, lighter, more responsive and  
perfectly balanced with Kilwell's 5 year  
unconditional guarantee, limited lifetime  
warranty**

**F: KILWELL Ultra Bright LED Clip Light,  
Quality torch, with clip to attach to hat,  
lecker, enabling hands free, lightweight  
small, compact size, water resistant, rotates  
360° supplied with 3x1.5v AAA Panasonic  
batteries, LED bulb life of 100,000 hrs**

**G: Scientific Anglers Fly Lines, a range  
of flylines to suit all styles of flyfishing**

**H: KILWELL Aluminium Fly Boxes  
with stainless hinge, lightweight with  
drainage holes**

**I: Scientific Anglers Large Arbor Fly Reels  
Made in England 456 - 678 - 850**

**J: KILWELL Trout Landing Net, Light weight  
aluminium frame, Soft/Kneep net bag, with  
vest clip. One of a number of options**

# TARGET TAUPO

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

NOVEMBER 2004, ISSUE 47

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

*Front cover: Two happy visiting anglers with fish caught in September on the Tauranga-Taupo River. Photo: Rob McLay.*

ISSN 0114-5185

General enquiries and address changes email: [fishinfo@doc.govt.nz](mailto:fishinfo@doc.govt.nz)

Production and advertising by Fish & Game New Zealand

Contact Peter McIntosh: Telephone (09) 634 1800

Facsimile (09) 634 2948

Email: [peter.mcintosh@fishgamenz.co.nz](mailto:peter.mcintosh@fishgamenz.co.nz)

# CONTENTS

Taupo Fishing District Map.....	3
Shags and trout..... <i>by Dr Michel Dedual</i>	4
Don't miss the summer seminars! .....	13
Fishing for smelting trout..... <i>by Dave Hart</i>	14
An outstanding winter on Taupo rivers .....	20
<i>by Glenn Maclean</i>	
Still going strong... after all these years..... <i>by Rob Hood</i>	24
Waitahamhi track repairs..... <i>by Errol Cudby</i>	25
Good fishing manners, common courtesy and understanding the code .....	28
<i>by Rob McCloy</i>	
How much do you value Taupo trout? .....	30
<i>by Petrina Francis</i>	
Taupo Sport Fishery Management Plan review .....	33
An easy way to make a difference .....	34
<i>by Rob Kirkwood</i>	
Exciting new project on the Tongariro River .....	36
<i>by Dr Michel Dedual</i>	
Load testing the Major Jones Bridge..... <i>by Errol Cudby</i>	39
Huemaiaia trapping trial meets target .....	40
<i>by Glenn Maclean</i>	
Promising season ahead for Lake O anglers .....	42
<i>by Mark Venman</i>	
Children's fishing pond is revamped for next year..... <i>by Errol Cudby</i>	44
Why does DOC manage the Taupo trout fishery?..... <i>by John Gibbs</i>	46
Making sure you receive your copy of <i>Target Taupo</i> .....	48
Lots of helpful information for anglers .....	49
Team profile - Tiana Greaves .....	50

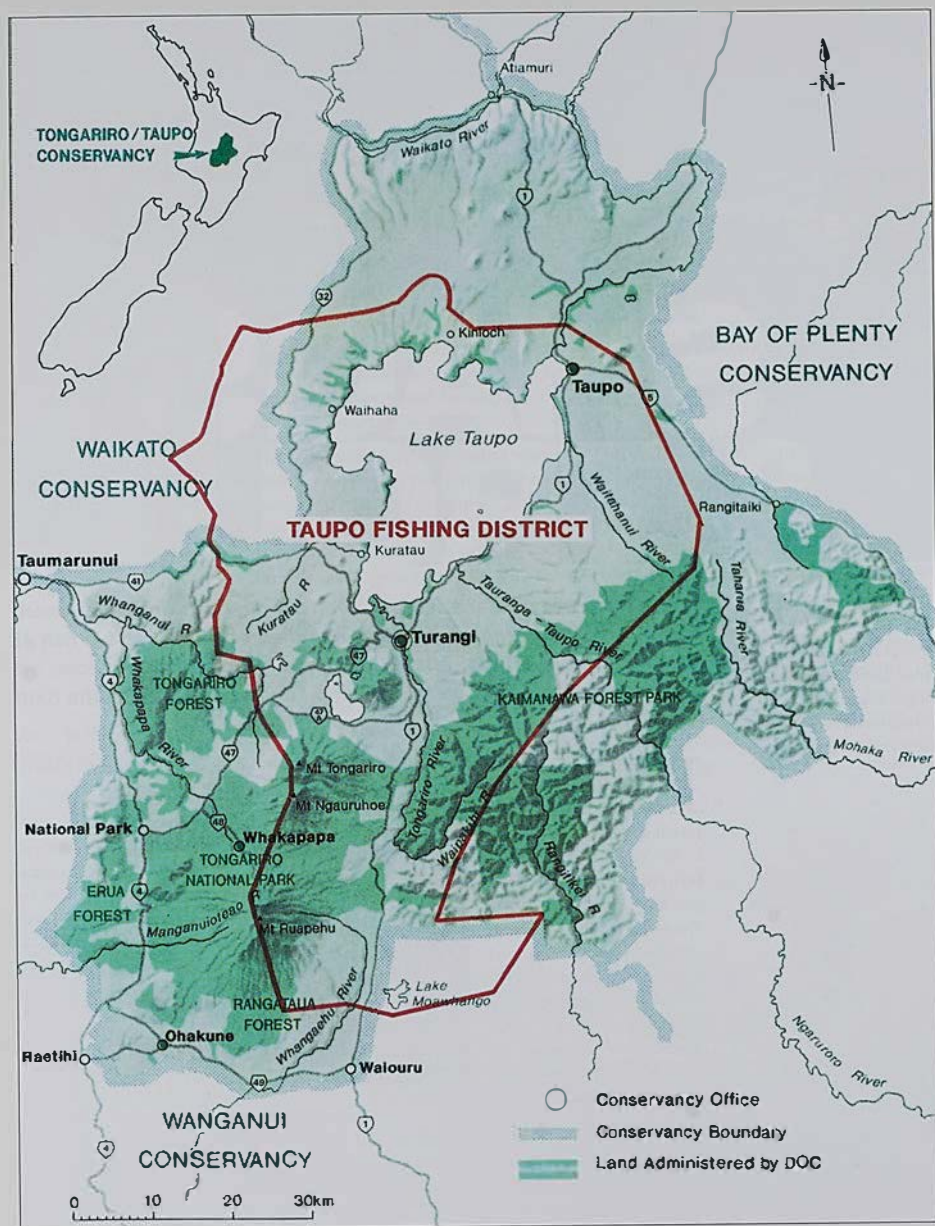
*The news expressed in Target Taupo are those of the contributors and do not necessarily reflect Department of Conservation policy*

*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, Turangi.*





# Tongariro/Taupo Conservancy





# SHAGS & TROUT

by Dr. Michel Dednal

Michel is the Fisheries Area Scientist (Holling originally from Switzerland) he is also a very enthusiastic angler.

**Anglers are often interested in the effect of shags on Taupo trout. Many think shags impact negatively on their ability to catch a fish at Taupo. In this article, Michel our fishery scientist, provides an interesting perspective on this situation and also discusses the food web in the lake.**

**L** December last year Ross Windsor from Omori handed us some photos of an impressive display of birds hunting fish in Lake Taupo. Ross is no stranger to the Taupo region; he has been chasing trout and hunting deer here since the mid 1950s. This extensive outdoor experience has sharpened his powers of observation and his report of what he saw on Thursday 2 December 2003 is worth repeating here. Ross is adamant that it was the first time he had seen anything like this.

On this morning, between 8 am and 9 am, Ross observed a very large flock of shags mustering fish with military precision along the shore of the lake between Te Rae Point and Kuratau Wharf. These birds were probably little black shags (*Phalacrocorax sulcirostris*) and/or little shags (*P. melanoleucos*). Ross dug a heel hole in the sand for each ten birds he

counted and at the end there were 64 holes or 640 shags involved!

*the shags were taking the opportunity to "beat" smelt out from the dark water zone below the drop-off into the clear top layer on the Kuratau shelf*

Shags breed early in life, have large broods, and are efficient predators even in marginal conditions. They seem to be able to adjust colony sizes quickly in response to local conditions, and have limited requirements for feeding and nesting habitats.

In this example at Kuratau, the shags were taking the opportunity to "beat" smelt

out from the dark water zone below the drop-off into the clear top layer on the Kuratau shelf where they were mustered. The shag operation was well drilled; at any time half of the birds were underwater and half were working the surface. The birds also formed a line as straight as a die from a few metres off the beach to about 100 metres of shore, charging in a southward direction.





Photo above:  
Petrina Francis

Early and late in the day, when the light levels are lower smelt tend to be shallower. During the day smelt tend to stay at depth where there is approximately only 1% of the amount of light at the surface of the water. In Lake Taupo this dim light level exists quite deep and often beyond the depth that shags can dive to. Also it is not so easy to hunt in deep water because smelt have many ways of escaping easily, they can go left, right, down, or up. In shallow water, however, smelt can only choose between left and right.

While the shags were mustering the smelt, a group of gulls on the beach, pretending not to be watching the hunt, waited, knowing that a free lunch was just around the corner.

The shags continued marshalling smelt in shallow water closer to the shore. When the right time arrived the shags dived and frantically attacked the smelt. Some smelt driven by panic and/or exhaustion were washed on the shore to be picked up by the gulls. Smelt are very fragile and the slightest physical contact is sufficient to fatally injure them. The gulls had an easy meal!

According to European research shags have two patterns of feeding en masse. They can hunt in a line as witnessed by Ross or in a zigzag pattern when individuals search and change direction. It appears that line hunting is associated with smaller fish like smelt, whereas zigzag hunters target fish larger than 150mm. A variation of hunting in a line that has been observed on Lake Rotorua is when hundreds of birds fly back

to tail in a large circle just above the water surface. In this case, the circle gets progressively tighter until it is about the size of a netball court. At this point, the birds suddenly abandon flight and all dive under water into the centre of the circle. A brief frenzy of feeding follows as the shags gorge themselves on masses of smelt which have been herded into a tight ball.

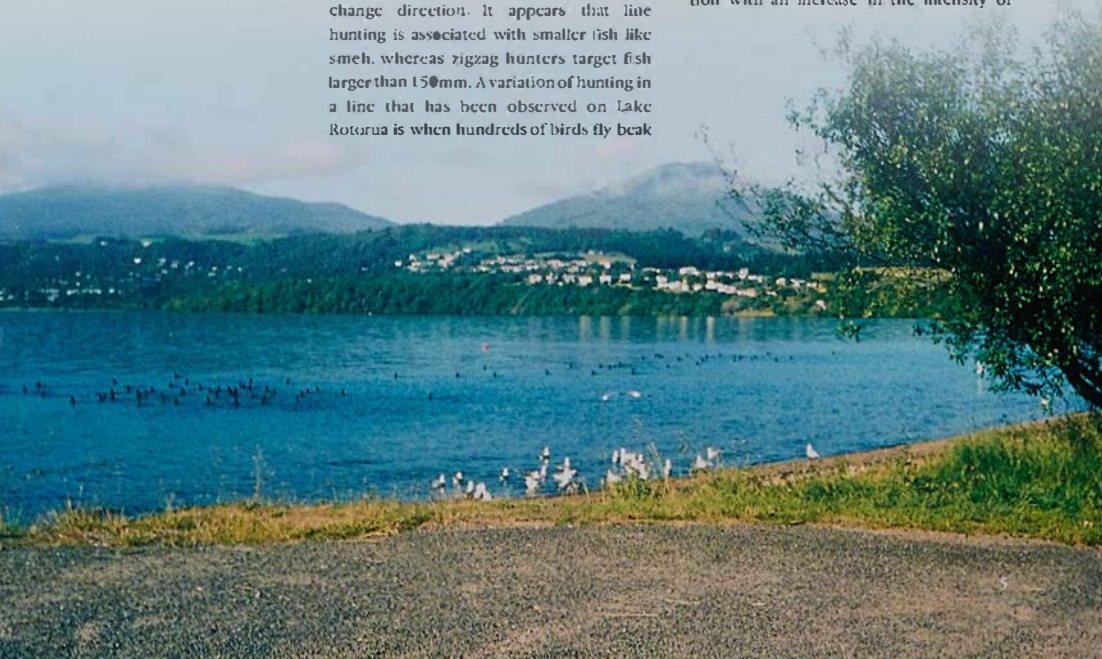
As smelt are only present in large densities in shallow water during their spawning period from November to March, the sort of feeding behaviour

observed by Ross is most likely to occur during this period of the year.

Shags are strongly attracted by fish concentration, which is why the biggest impact of shags has been noted around aquaculture ponds or following releases of large densities of hatchery-reared fish. A study reports that in a river in the USA shags (cormorants) altered their feeding distribution in response to trout stocking. The stocking dates coincided with peak food demands of these birds, which depended mainly on the timing of the food requirements of their chicks. Cormorants could consume almost all of the fingerling trout stocked in this particular river. It was barely surprising that the density of cormorants increased in conjunction with an increase in the intensity of

*Unlike many anglers, we would actually be concerned if the shag population decreased. This is because it could indicate something more sinister.*

Photo below:  
Ross Windsor



stocking in this river. This is another reason why stocking operations are not an efficient way of improving fish production, as explained in the first issue of *Target Taupo*.

It is not known how many shags in total are present in the Taupo catchment because no systematic census has been done. But more importantly it is not known what the total population trend is. We suspect that the total population increased during the last decade or two because of the increase in productivity of the lake, the establishment of catfish, which are now a prime food source for shags, and the reduction of the use of organochlorine herbicides. These herbicides (mainly DDT) cause eggshells to be thin and easily broken, increase deformity and reproductive failures, and have been incriminated in the reduction of many bird species around the world. We are not aware of any reports available on the concentration of DDT in the Taupo catchment, but until 1989 when it was banned, DDT was widely used in New Zealand. Therefore, it is possible its use could

have impacted on the shag population.

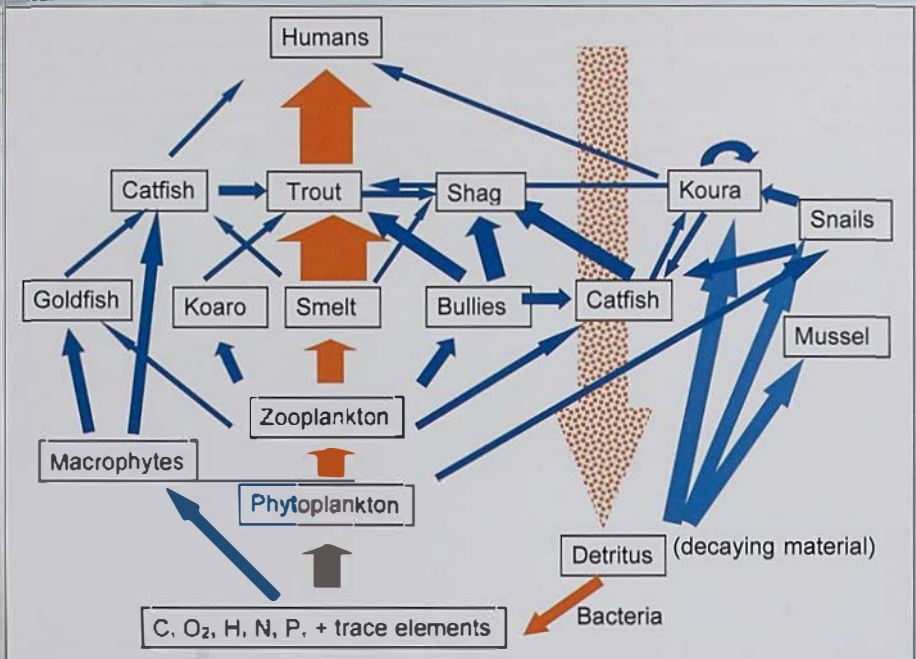
Unlike many anglers, we would actually be concerned if the shag population decreased. This is because it could indicate something more sinister. It would be a clear indication that the stock of smelt and bullies, that are the main food of shags and trout, had also decreased, even with an increase in water fertility. This could signal that we may have reached the phase where the increase in productivity is beyond that which could be beneficial to the lake, a very sad situation.

However it is easy to understand that a large flight of shags can raise concerns amongst anglers. Anglers think "All these shags eating smelt and trout must have a negative impact on the trout fishery and they must be affecting my angling success".

And so, in the rest of this article we will explain where shags fit into the trophic chain or food web at Taupo and discuss what their likely impact is.

We generally talk about trophic interactions

Figure 1: Food web in Lake Taupo. The orange colour indicates the most important axis of the web. The thickness of the arrows indicates their relative contribution. The semi-circular arrow associated with koura indicates cannibalism that is a large part of mortality in koura, especially amongst males.





That's some serious **big fish** water.

*Way over there.*

**Just look at that cutbank.**

**It's a long cast,**

*but at least the wind's blowing.*

**Ha,**

**if I can just get a little closer...**

*oops, too deep.*

**Brrrr.**

**Got to make the cast.**

**Okay, Mr. Brown,  
meet Mr. Woolly Bugger.**

That's some serious **big fish** water...

**Distance isn't everything. Except, of course,  
when it's everything.**

**THE SAGE TCR SERIES.** No matter how stealthy you are or how deep you can wade, the fact is, sometimes you just have to rear back and throw long. Really long. Into the wind. With big, heavy flies. Which is exactly why we created the TCR Series. Built on the extreme edge of ultra-fast rod design, the TCR gives skilled anglers a distinct advantage when facing the most demanding situations. And because a long cast is only part of the equation, the TCR is designed to help you achieve the precise line control that's necessary for effective long-distance presentations. Of course, there will always be fish that you just can't reach, but with a TCR there won't be many.

[www.sageflyfish.com](http://www.sageflyfish.com)

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

**SAGE**

when "big things are eating small things". Large fish eating small fish are particularly important in influencing the structure of fish communities. Figure 1 shows the Lake Taupo food web. A food web is made up of interconnected food chains. The arrows point from a member of the food web to another member of the food web that eats it. We can see that even when there are only a few species such as the situation at Lake Taupo, the food web becomes very complex. Without a complete knowledge of the ecology of the animal community it is not easy to describe the whole system and thus accurately assess the impact of one species on the others. Nevertheless for Taupo, some parts of the food web have been intensively studied and/or quantitatively estimated, principally by Drs. Cryer and Stephens.

Humans and in particular anglers, are at the top of the food web, as they consume other organisms, but are not consumed themselves, except by invertebrates and/or bacteria following death. The other top predator in the Lake Taupo ecosystem is the shag.

In any food web, as soon as food source and habitat are available an opportunity is created for a species to exploit. The more complicated or marginal these opportunities, the more specialised the species needs to be to exploit the opportunity. The most striking example of adaptation to a particular niche in Lake Taupo is found at the southern end of the lake. In the swamps alongside the road between Tokaanu and Waihi and in the Waipahihi Stream, Sailfin mollies, a small

typical fish 60-70mm long are found. This species can live in the plumes of thermal water at a temperature sometimes greater than 30°C. This warm water must remind them of their original home in equatorial Brazil and is much too warm for other species, although occasionally there is some overlap with catfish. It is not known when Sailfin mollies were first released in Taupo but it was almost certainly by an aquarist.

The principal axis of the food web in Lake Taupo starts with phytoplankton. Phytoplankton has a similar role to grass on land and uses solar energy to build chlorophyll from carbon (C), oxygen (O<sub>2</sub>), hydrogen (H), nitrogen (N), phosphorus (P) and some trace elements like magnesium. The chlorophyll is then used to transform the solar energy. C, O<sub>2</sub> and H into sugar. Therefore the production of phytoplankton is dependant upon the concentration of these elements in the water. There is no shortage of carbon, oxygen and hydrogen so phytoplankton is mainly controlled by the concentration of nitrogen and phosphorus. The phytoplankton are all unicellular (single-celled) organisms which grow by dividing into two. Under favourable conditions a cell can divide around once each day, and hence their numbers can increase very rapidly. Estimations of phytoplankton production in Lake Taupo were made twice each year during the 1980s. From this data it was estimated that the production of phytoplankton in Lake Taupo was approximately 1800,000 tons per year.

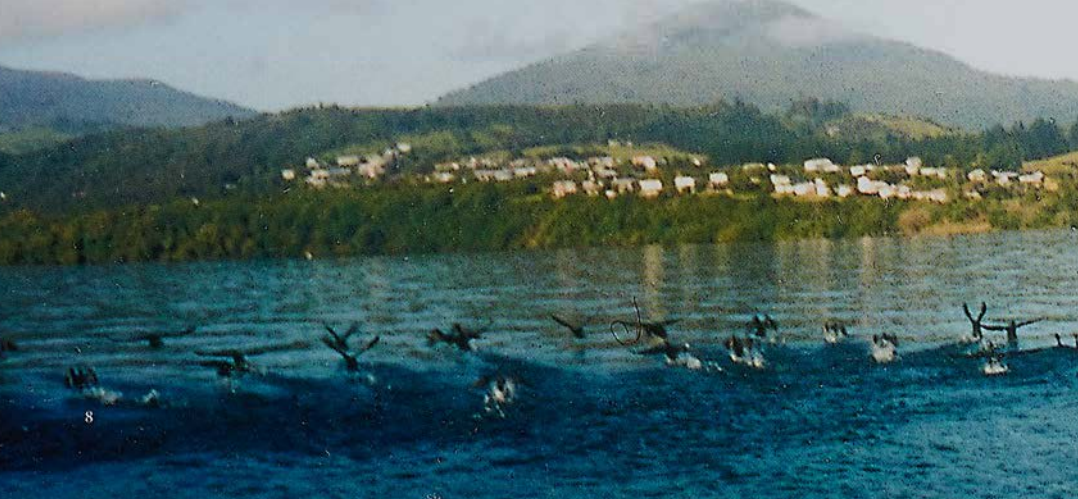
The next trophic level is the zooplankton which eats phytoplankton (or other small

*it was estimated that the production of phytoplankton in Lake Taupo was approximately 1,800,000 tons per year*



*Sailfin mollies have adapted to living in the thermal areas of the lake. Photo: University of Arizona, Tucson*

*Ross Windsor from Omori observed a very large flock of shags mustering fish with military precision along the shore of the lake between Te Rae point and Kuruan wharf on the 2nd December 2003. Photo: Ross Windsor*





zooplankton) with their claws, legs and heads absorbing their cell contents. Zooplankton range in size from less than 0.05 mm to 5 mm in length. Some of the smallest zooplankton species grow like phytoplankton by division and their numbers can respond very rapidly to a phytoplankton bloom. Larger zooplankton species have much longer and more complex life cycles involving the development of eggs into juveniles and eventually into mature adults. Some experiments have shown that zooplankton density increases when there is an abundance of "good" phytoplankton and/or small zooplankton. In turn, as the large zooplankton density increases they drive the abundance of "good" phytoplankton down, favouring the proliferation of less desirable phytoplankton. Eventually zooplankton decreases in abundance because of a lack of high-quality food enabling the cycle to repeat itself once "good" phytoplankton multiply and out compete the "bad" phytoplankton. Information on zooplankton production in Lake Taupo is very limited and only rough estimates have been made. However, large seasonal fluctuations of zooplankton have been identified. For example, data available indicates that in 1987 the total zooplankton biomass ranged from 16,200 tons in April to 81,000 tons in November.

The third trophic level consists mainly of smelt which rely almost entirely on the zooplankton for their survival. Young fish of other species present will also consume zooplankton at some stage during their early development. However, this is negligible in comparison to the consumption of zooplankton by smelt. In favourable

conditions when there is a lot of food, smelt can gain enough condition to spawn three times during the year. However, smelt in Taupo are not generally in good condition which is attested by the low fat content in their body and the fact that they have just enough energy to spawn only once or twice. This is an important point, because it means that smelt production in Lake Taupo is limited by the production of zooplankton. The fact that so many smelt compete

for the available zooplankton, explains why they are so lean and cannot realize their full reproduction potential. It is also likely the reason why smelt in Taupo do not grow as large as in some other lakes and rivers around New Zealand. The total production of smelt during the 1980s at Taupo hovered around 4,500 tons per year.

The fourth trophic level in Lake Taupo is largely dominated by trout. The production of trout in the lake is the most studied trophic level and provides the most reliable data, with estimations having been made by netting surveys and echosounding. In 1988 and 1989 the total trout production was estimated at 530 and 330 tons per year respectively. It is important to note that these figures encompass fish of all sizes, including the juveniles that have just entered the lake and those that are under legal size. So it is not appropriate to divide the total trout production by the average weight of angler-caught trout to work out the total number of adult fish present. Another important point is that contrary to smelt, trout are in really good condition in Taupo, indicating that there is more than enough food for them. **10**

*Smelt production in Lake Taupo is limited by the production of zooplankton*



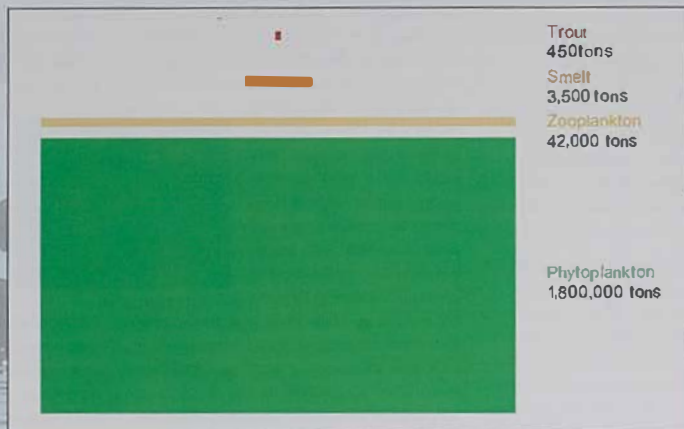


Figure 2: Production of the different trophic levels in Lake Taupo

noting though that trout size is constrained by the energy required to catch and feed on individual smelt, and if the smelt grew larger then the trout size would also be greater.

It is crucial to realize that all organisms from all trophic levels eventually revert to detritus or decaying material. The food chain does not only work in one direction, top to bottom, but has a circular quality, as well. The detritus will slowly sink until it reaches the bottom of the lake where bacteria, fungi, snails, mussels and koura will "recycle" the carbon. When all the detritus is recycled the lake will be healthy and clear, however if there is too much detritus the excess will settle on the bottom of the lake and choke the recycling process. As we have discussed, the quantity of detritus produced is dependant on the quantity of nutrients (nitrogen and phosphorus) entering the lake, which is why it is paramount to limit the input of such nutrients into the system.

Another important rule in the trophic chain is that as food is passed along the chain, only about 10% of the energy is transferred to the next level. For example, 10% of the energy phytoplankton receives from the sun can be used by zooplankton at the next level. In other words, from one level to the next about 90% of the energy used by the previous level is lost. This is why there are a lot more organisms at the lower level than at

the upper levels.

So how does this all relate to our concerns about shags?

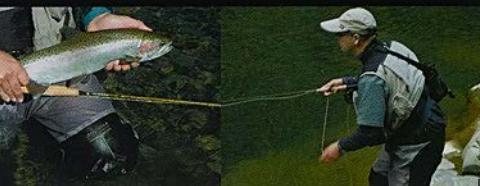
The sporadic figures on the abundance of shags obtained since the 1950s suggest that the total population is in the order of several thousand birds. Each thousand little shags represents a total biomass of approximately 800kg. The food intake of a little shag weighing 0.8kg is about 110g of fish per day or 40kg per year. Therefore a thousand little shags would consume 40 tonnes of fish per year. For example, if there were four thousand shags in the Taupo region (there are probably less but certainly not more) then the total annual consumption of fish is 160 tonnes. Even if these 160 tonnes of fish are solely smelt, the amount eaten by shags would represent only 3.5% of the total production of smelt in the lake. In comparison trout will consume between 11% and 14% of the smelt production. In reality, a considerable portion of shag diet includes species like koura, bullies and catfish, reflecting the distribution of these fish in the shallows where the shags prominently feed.

Anglers often express concern that these shags may be feeding directly on young trout in the lake. However, diet studies in 1972 in nearby Lake Rotorua found no trout remains in the stomachs of 248 little black shags. This is not unexpected given that juvenile or

*Anglers often express concern that these shags may be feeding directly on young trout in the lake*



"The best and fastest way to learn a sport is to watch and imitate a champion" Jean-Claude Killy



## Record breaking rods

### TI+ FLY RODS

Combining high modulus carbon with titanium under the right process gives an extremely light and strong material normally used by the space and aircraft industry for their most exposed parts.

Bonding titanium and carbon is a very difficult process patented by an American co-operation and only a few companies within the sporting equipment industry have obtained licence to use this technology.

The Scierra Ti+ rods are constructed from 46ts carbon cloth with woven-in titanium fibres - all produced in the U.S.A. - giving an incredible stiffness and a very light, fast responding rod with fantastic casting potential.

In order to obtain maximum strength and to make the rod as slim as possible the blank is even x-wrapped with six titanium wires securing that sudden impacts and high stress are distributed to a bigger part of the blank. As pure titanium has a lower elastic strength than carbon the titanium wires also give an effective dampening effect while casting and shooting the line. Available in a 9' #5 rod up to a 10' #8 rod

9' #5 ONLY \$589.99

10' #8 ONLY \$665



Hywel Morgan earned his international reputation as competition fly caster by winning both the world champion title, the European Championship, more than 100 British titles as well as holding 14 British casting records. His sensational singlehand world record at 80.49 metres is still standing. Beside designing and testing Scierra rods Hywel is busy running his famous fly casting school.



### HYWEL MORGAN HM2 FLY ROD

This rod series has been designed and developed by World champion fly caster Hywel Morgan.

Through his efforts the Scierra HM2 has ended up as one of the most unique fly rods in the world. The HM2 programme comprises of a 9' #5 rod up to a 10' #8 rod.

Being the first in fly rod production to use vacuum ovens for processing the blanks, Scierra has taken a great step in creating a stronger, lighter and more powerful blank. The ultra high modulus graphite, the moderate stiffness, and a progressive power taper, gives the blank the power to tighten the casting loop and deliver fabulous precision over long distances.

The rods are equipped with double super slim shooting guides, whilst the lighter rods are fitted with US snake intermediate guides. These guides are extremely light and will never be damaged during transport. The handles are made of the finest and selected Portuguese cork. All rods are supplied in a codura rod tube and are covered by a lifetime warranty.

ONLY \$589



Joints



Replace intermediate snake guides

### DEALER LIST North Island

- Hunting and Fishing, Taupo 07 378 4449
- McCoy & Thomas Hunting & Fishing Whangarei 09 438 3111
- Dargaville Sports Hunting & Fishing Dargaville 09 439 8520
- Tisdalls Auckland 09 379 0254/0255
- Hunts SportsStore, Auckland 09 410 9415/3263
- Hunting & Fishing, Westgate, Massey North 09 833 3019
- Hunting & Fishing, Auckland 09 298 1556
- Hunting and Fishing, Hamilton 07 849 0297
- Hamills, Rotorua 07 348 3147
- Sporting Life, Turangi 07 386 8996
- Hamills, Hastings 06 878 7177
- Guns & Tackle Hunting & Fishing, Hawkes Bay, Napier 06 835 9016
- Hunting & Fishing, Wairapa, Masterton 06 378 8723
- Fishing and Shooting Supplies, Waipukurau 06 838 6061
- Tisdalls, Palmerston North 06 338 6377
- Hunting and Fishing, Palmerston North 06 355 3101
- Tisdalls, Wellington 04 472 0485
- Hunting and Fishing, New Plymouth 06 757 2255
- Hunting and Fishing, Whakatane 07 308 7528
- Hamills, Tauranga 07 578 0995
- Hunting and Fishing, Tauranga 07 928 4303
- Hunting and Fishing, Wellington Lower Hutt 04 589 9500

### South Island

- The Complete Angler, Christchurch 03 366 9885
- Alan Millar's Hunting and Fishing, Dunedin 03 477 6665
- Hunting and Fishing, Nelson 03 548 1840
- Fishermans Loft, Christchurch 03 348 8836
- Ballingers Hunting & Fishing, Christchurch 03 366 7445
- Outside Sports, Queenstown 03 442 8883
- McCarthy's CentreFire Sports, Dunedin 03 477 3266
- Allan White Sports Hunting & Fishing, Invercargill 03 218 2266

**SVENDSEN SPORTS NZ**

TEL: 07 579 2487 FAX: 07 579 2497  
WWW.SCIERRA.CO.NZ



young trout have to be at least 100mm to 150mm long to survive in the lake, at which size they are probably too large and agile in the open waters of the lake for these relatively small birds to catch.

Other phalacrocoracidae species and especially the black shag (*Phalacrocorax carbo*) are more solitary hunters that dive the deep pools in rivers. Black shags are bigger (2 to 2.5kg) and hunt larger prey than smelt, often taking trout up to 40cm. Nevertheless one trout will suffice to feed a black shag for several days. Trout and other riverine fish are

Under a perceived threat, they sheltered, foraged less and grew slowly. As expected, they increased their use of the riffles at high flow as water turbulence is an efficient shelter from birds when no other form of cover exists. In the presence of cover, fish sheltered exclusively under cover and were more prone to take risks at low flow because of higher costs in terms of lost feeding opportunities associated with these conditions. Other studies also show that salmonids emerging during low to moderate flows are much more vulnerable to avian predation because the depth is less. The opposite occurs during high flows.

Black shags are much less common than their smaller relatives in the Taupo catchment. Bearing this in mind and considering a trout's ability to deal with this menace, the impact of black shags is minimal in the big scheme of things.

In fact the biggest impact on the Taupo trout fishery is much more likely to occur through human activities. Shags rely on fish for survival and therefore their well-being will be a reflection of the health of the environment. As we have seen, smelt is an important component of the food chain at Taupo. A change in environmental conditions would affect the whole trophic chain in the lake, including smelt. If there were no fish or food source due to an environmental catastrophe, there would be no shags.

Perhaps the biggest concern we have then, is that one day there will be no shags seen in the Taupo catchment. This would raise alarm bells, as it will also mean ultimately no smelt or trout or any of the other things we value. We can only hope this never happens!

So next time you are fishing out on the lake and see a group of shags working the shallow margins or settled in a group on the rocks, instead of looking at them negatively, remember that these birds are positive evidence that the Taupo environment and the trophic chain in the lake is healthy! Otherwise they wouldn't be here.



Black shags are much less common at Taupo than their relatives the tufted duck. One adult trout will feed a black shag for several days.

Photo: Crown Copyright, Department of Conservation Te Papa Atawhai

well equipped to deal with the shag menace. Some experiments were conducted in an experimental outdoor stream to evaluate the effect of predation, stream flow, and overhead cover on growth and behavioural tactics of wild young fish. Groups of fifteen fish maintained in riffle pool sequences were submitted to combinations of these different conditions, including the absence or presence of a dummy shag, low or high flow, and the absence or presence of medium and high cover. In the absence of any predation threat, fish foraged in the riffles and maximized feeding opportuni-



# DON'T MISS THE SUMMER SEMINARS!

Once again we are running our popular summer angling seminars over the Christmas holiday period this year.

The two seminars, which form part of the Department of Conservation's Summer Programme, are designed to help visitors or beginner anglers learn more about the Taupo trout fishery and provide tips on how to catch trout on Lake Taupo.

Fishery staff will not only answer questions about fishing, but will also explain the life cycle of Taupo trout, how seasonal changes affect where and when fish can be found, various angling methods and rigs, how to release trout effectively, basic boat fishing techniques and key angling and boating regulations.

## DON'T MISS OUT!

Seminars will be held outdoors at the following venues:

- Thursday 30th December 2004 10:00 am Omori Boat ramp reserve
- Friday 31st December 2004 10:00 am Kinloch Marina reserve

The seminars are free, and no bookings are required. Bring a chair, hat, drink and sunscreen. If the weather looks uncertain, call our duty officer on 027 290 7758 to find out if the seminar has been cancelled.

We look forward to seeing you there!



[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 image shows the interior of a sporting goods store. The walls are decorated with taxidermy, including several large deer heads with impressive antlers. Fishing gear, including rods and reels, is displayed on shelves and hanging from the ceiling. A bar counter is visible in the background, and a display case is in the foreground. The overall atmosphere is rustic and outdoorsy.



# FISHING FOR SMELT

by Dave Hart

*Dave is our Temporary District Ranger and a very keen angler.*

*A sample of smelt from monitoring done in August. Small numbers are present around the lake shore all through the year, but high concentrations of spawning smelt appear in the sandy shallow areas during the warmer spring months. This heralds the beginning of the 'smelting season' for anglers.*  
Photo: Petrus Francis

The spring period brings something of an angling hiatus on Taupo rivers as the spawning runs of winter draw to an end and the attraction of summer dry fly and nymph fishing remains several months away. Fortunately, for both keen anglers and the weary koi returning to the lake from their spawning runs, this time coincides with the smelt spawning season and the migration of vast numbers of these tiny fish to the shallow sandy margins of the lake. In doing so they draw the predatory trout from deeper haunts and provide a timely and plentiful food source for trout recovering from the spawning season.

This phenomenon presents a variety of excellent fishing opportunities for Taupo anglers

Hurling the droppolls and shallow bays by boat is probably the most popular method employed to target smelting trout. However in this article we seek to highlight the excellent opportunity for shore-based anglers to exploit this change in distribution and behaviour of

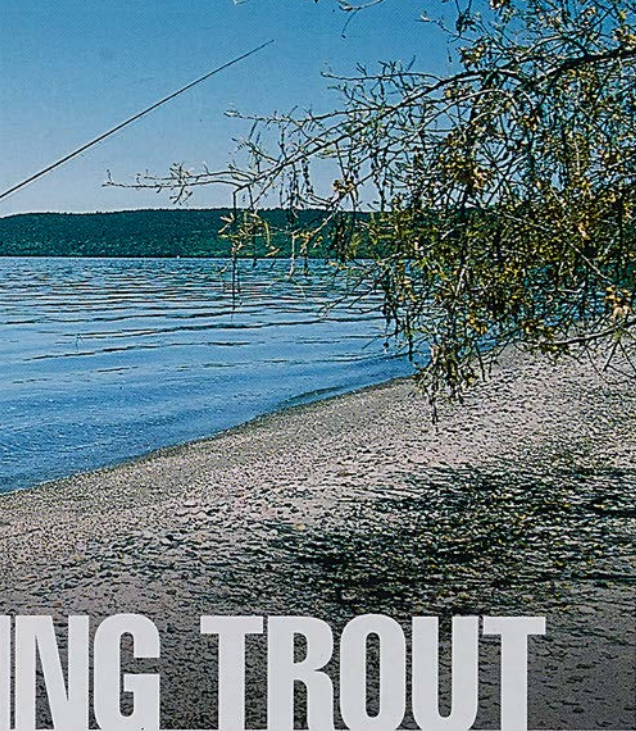
Taupo trout and hopefully provide some useful tips to increase anglers' success in targeting them.



Firstly it is useful to have an understanding of smelt and their life cycle and how this relates to the trout. Common smelt (*Retroptina retroptina*) were introduced to the lake in the 1930s.

They quickly established to become the major food source for Taupo trout and now account for about 90% of the diet of trout while they are in the lake. As a consequence the distribution of trout within Lake Taupo is





# ING TROUT

*Synonymous with smelting at Tarpo. A warm sunny day, snow on the mountains and the broom & kowhai in flower. Note how the angler is keeping his rod behind him.*  
Photo: Glenn Mudgean

strongly influenced by that of the smelt - where the smelt go, so follow the trout. Smelt are a pelagic or open-water fish tending to shoal together, and for the most part can be found right throughout the lake at all depths where they feed on suspended zooplankton. Large shoals of smelt often show up as dark bands close to the lake bed or the middle on echo-sounder displays, and on sounders using a 'fish ID' function can sometimes produce a mistaken return as a single large fish. Small numbers of smelt can be seen in the lake margins throughout the year, but with the onset of warmer spring weather they begin to migrate into the shallower sandy lake margins to spawn from October through to December, and then for a second time to a lesser extent around March. The high concentrations of smelt attract the trout, and so for the angler the 'smelting trout' season begins.

To successfully target smelting trout, a few considerations come in to play including location, time of day, weather conditions, tackle and technique. One of the most rewarding aspects of fishing for smelting trout is that it requires a degree of hunting, no different to summer stalking of fish in a backcountry river. The

successful angler will be prepared to cover a bit of water looking to spot fish or for signs of feeding activity. Some locations will produce a different quality of fishing experience. The Tokaanui tailrace for example has prolific smelt action but suits blind-fishing methods whereas the remote western bays beaches and stream mouths or the White Cliffs north of Hapepe offer solitude and sight-fishing opportunity.

A benefit of smelting for trout is that the fish are happy to keep conspicuous hours and often the best fishing is to be had at the height of day, when the sun is high and spotting is easier. Early or late in the day at change of light periods can be equally productive but sight fishing is not usually an option and instead anglers target known fish-holding areas such as the river or stream mouths.

The effect of weather has a strong influence. Bright sun overhead necessitates a stealthy approach but greatly increases the angler's ability to spot fish. Often in such conditions it is the shadow of the fish on the bottom which is most obvious to an angler. When the sun is lower to the horizon the glare of the water often makes spotting much more difficult and even a slight ripple in such circumstances makes seeing fish almost impossible. A fresh wind can make shore line stalking impossible, and even a moderate ruffle on the water can reduce visibility. Where possible, fish the lee shore. In light breeze conditions where it is difficult to scan the water for shape and shadow of trout, look for other signs to indicate their presence such as the swirls or splashes of feeding fish, or the attentions of shags flapping and feeding across the surface as they pursue the shoals into shallow water.

Most anglers opt for a floating line approach but many of the clear intermediate lines available on the market are ideal for the task as they create no surface shadow or wake on retrieval, which can be enough to spook wary fish. Polaroid sun glasses and a hat to shade them are essential for spotting trout, and dull coloured clothing to minimise visibility is advisable, as is a liberal coating of sun screen and either lightweight long pants or insect repellent to combat the sandflies.

A wide variety of fly patterns are available to imitate the appearance of the smelt and most are very simple to tie. Long-time favourite

patterns such as the Grey Ghost, Jack Sprat, Silver Dorothy and Mallard Smelt still produce fish alongside modern patterns such as the Silicon Smelt, soft-bodied Wiggletail Smelt and ultra-realistic epoxy bodied varieties. In appearance smelt are slender and translucent with the most visible feature being a large silver eye and gut, which often appears orange due to the zooplankton diet and the vertebrae visible as a shadowed line through the body. When viewed under water these fish appear as little more than a splinter of glass with eyes, and of all the fly patterns available a silver bodied silicon smelt would arguably be hard to beat as the closest representation of the real thing. However, the success of a bright yellow Yellow Lady at this time of year demonstrates it is not always necessary to exactly imitate the smelt. Smelt are easily distinguished from galaxiids such as koaro by having scales, an adipose fin, clearly forked tail, and a distinctive cucumber odour.

Smelt are a very fragile fish and even the most delicate contact inevitably proves fatal to them. This is of note to the angler as it has some influence on how trout feed on the smelt and how in turn fish can be sometimes more effectively fished. After racing into a shoal of smelt trout can be observed to nimbly back and mill around, gulping down smelt which were killed or crippled in the initial attack. At times a fly cast and dead drifted will be taken where a fist-stripped offering is refused. A dead-drifted fly also works well on cruising brown trout which are notorious for ignoring an active retrieve. Another useful variation on this method in fishing more turbid waters such as

the tail race at Tokaanu, is to nymph in the usual fashion with a beadhead silicon smelt fly used to represent a worse-for-wear smelt drifting with the current.

Fly sizes between No.12 and No.8 resemble the common size of Trupo smelt at around 50mm to 60mm in length. Trupo smelt do not grow much bigger than this whereas in some lakes and rivers they can grow to around 120mm. In the Waipapa River of Northland's Puketi Forest very large smelt are encountered and will persistently take dry flies intended for trout! We can only wistfully imagine the effect on trout growth and size at Trupo if our smelt were to grow this big.

When stalking the shoreline looking for smelting trout, remember that stealth and patience are the key to prevent spooking fish before you see them. Walk slowly and keep out of the water as you scan for fish, hold your rod behind you as sunlight flashing off the bank or guides can give you away, and definitely avoid quick body movements or waving and pointing with your arms or rod. If you can, survey the water from as high a vantage point as possible. A good tactic is to fish with a buddy and take turns fishing and spotting - the spotter keeps back from the water at a higher vantage point and looks for fish, while the angler follows further back ready to cast from out of the trout's field of vision. This particularly pays off when the fish is approaching from the opposite direction and can be on you before you spot it first. The occasional look back at the water behind is worth the while too, as cruising trout can come from literally anywhere and if you are

*Often it is necessary to stalk a cruising trout*  
Photo: Glenn Macleod





TOLL FREE  
0800 270 222

# HAMILLS®

NEW ZEALAND

TOLL FREE  
0800 270 222

## SHIMANO

### SCOOP PURCHASE

#### Ideal Snapper Cast/Strayline Set

#### CATALA™ 400

- 5.2:1 Retrieve
- 4 Stainless Ball Bearings
- Quickfire clutch bar casting system.
- One piece body.
- 220 yds 17lb Mono.

Special Hamills Price Only

**\$299**

PLUS

SHIMANO  
TAIPAN 6' 8-12kg Rod

#### Ideal Deepwater Trout / Snapper Jig Set

#### CATALA™ 300

- 5.2:1 Retrieve
- 4 Stainless Ball Bearings
- Quickfire clutch bar casting system.
- One piece body.
- 240 yds 12lb Mono.

Special Hamills Price Only

**\$299**

PLUS

SHIMANO  
TAIPAN 6' 4-8kg Rod

#### Ideal Trout Jig Set

#### CATALA™ 200

- 5.2:1 Retrieve
- 4 Stainless Ball Bearings
- Quickfire clutch bar casting system.
- One piece body.
- 230 yds 8lb Mono.

Special Hamills Price Only

**\$299**

PLUS

SHIMANO  
TAIPAN 5'6" 2-4kg Rod

**PLUS FOR A LIMITED TIME**  
with all Catala deals

**A FREE CASIO G SHOCK WATCH**  
valued at **\$269.00**  
or analog model  
worth **\$299.00**

### FREE TIMEX WATCH

EXPEDITION QUARTZ INDIGO WATER RESISTANT 50M  
when you purchase this...  
SHIMANO SPIN SET

Special Hamills Price Only

**\$149.95**

Sienna 3 Ball Bearing Reel Plus  
2 Piece Shimano Beastmaster 6'6" Rod

- 5 year guarantee
- Rod & reel valued \$189
- Timex watch valued \$189

Normal Package \$378



#### Lazerline - Ideal Taupo line

- Hard wearing
- High floating
- Slick / long casting

Special Hamills Price Only

**\$119.95**

#### NZL Wilderness Plus

- Long life
- Low visibility
- Slick finish

Special Hamills Price Only

**\$94.95**

Offer available while stocks last

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

Cameron & 9th Ave, Tauranga  
Phone 07 578 0995

HAMILLS  
CHRISTCHURCH

575B Colombo St  
Phone 03 377 5090

HAMILLS  
NELSON

83 Bridge St  
Ph: 03 548 1708

BLUE FOX BLUE FOX BLUE FOX BLUE FOX BLUE FOX

# FRESHWATER SOFTBAITS

## Bluefox Squidgy - Pre Rigged



60mm RT



60mm TR



60mm BRG



60mm HSS



60mm P

## Bluefox Vibro Minnow - Freshwater



## Bluefox Squidgy - Freshwater



stalking slowly enough they can have plenty of time to mooch up from behind. Experienced anglers often have a few metres of flyline already past the rod tip so on seeing a fish they can quickly make a cast. Try to predict the likely course of the fish and aim to land your fly a few metres ahead. When the fish are feeding actively the plop of the fly on the water surface will be enough to attract their attention and stimulate a strike. On other occasions when they are much more cautious casting this close will spook them and a better approach is to cast well away. Ideally you will be able to see your fly and it is just a matter of waiting until the fish is close and then twitching your fly to attract its attention. In such circumstances a slow retrieve often works best and you will often see the fish actually engulf your fly - a great buzz.

A few locations around the lake favour deeper methods of fly presentation and can also be targeted by spinning where regulations permit. The close to shore drop offs at the Karatu Spit and Whararua Point are well suited to fishing a fast-sinking line and are popular smelting locations when unfavourable weather conditions make sight-fishing impossible. A useful tactic for anglers who don't fly-fish or to enable kids to participate is to spin fish with a small shiner ahead of a 1 to 1.5 metre trace and floating smelt pattern or white boot fly, which is cast out and slowly retrieved. With the regulations changing this year many small stream mouths which are previously restricted to fly-fishing only have been opened up to all legal methods and anglers keen to give spinning methods a go have plenty of options.

Later in the season as terrestrial insects such as the green mameka beetle begin to appear in numbers, surface action on the shoreline taken for smelting trout

BLUE FOX BLUE FOX BLUE FOX BLUE FOX BLUE FOX





*Ideal conditions at the White Cliffs a calm day with the sun high in the sky and lots of white sand against which to see the cruising fish*

*Photo: Glenn Macleau*

can sometimes turn out to be 'beetling' trout instead. A suitable dry fly pattern can sometimes work and persistence with smelt flies can still provoke a take. However fish feeding on green beetle are notoriously fickle.

As is expected at the time of year when many fish are returning to the lake from their spawning runs, kelts are bound to feature among the catch. Remember to treat these fish with care to help their chance of survival.

Unhook the fish at the waters edge using pliers or forceps to prevent any need to grab and handle the fish.

Fishing for smeltling trout can be as exciting as sight-casting to fish in a backcountry river, or as relaxed as wandering a deserted bay with the family and dog in tow and a rod in hand. Whatever the motivation, give it a try - targeting smeltling trout can be a lot of fun.

**Winter Fishing**

5mm Magnum Waders .....	<b>\$275<sup>00</sup></b>	S.A. High Plateau Wt.F 8+9s ....	<b>\$125<sup>95</sup></b>
5mm Riverworks Waders .....	<b>\$199<sup>95</sup></b>	Jig Sets .....	from <b>\$115<sup>95</sup></b>
Innovation fly rods .....	from <b>\$450<sup>00</sup></b>	Troll Sets .....	<b>\$125<sup>95</sup></b>
CD GHR fly rods .....	from <b>\$500<sup>00</sup></b>	Harling Sets .....	from <b>\$99<sup>95</sup></b>
Custom tied tungsten bombs ....	<b>\$2<sup>75</sup> ea</b>	Loomis rods now in stock.	

See Tim or Allan For Best Information & Deals.  
We are on the Lake Most Days.

**Barry Greig's of Turangi**  
Fishing specialist to the great lake.  
Ph: 07-386 6911 Fax: 07-386 6561  
59 Town Centre, Turangi Email: [barrYGreig@paradise.net.nz](mailto:barrYGreig@paradise.net.nz)

**G-Ioomis**  
Where Technology and Performance meet

For the latest info check  
[www.greigssports.co.nz](http://www.greigssports.co.nz)

FKG 863

Pools on the Tongariro River have been fishing well this winter and as a consequence attracting lots of anglers  
Photo: Norrie Ewing

# AN OUTSTANDING WINTER ON TAUPO RIVERS

by Glenn Maclean

Glenn is Programme Manager Technical Support and manages the research and monitoring work done in the area.

Following a solid start to the winter angling season the fishing continued to improve culminating in some exceptional angling in August and September. Average catch rates for the season measured on the rivers were some of the highest recorded in several decades.

The monthly catch rate estimates for the Taunanga-Taupo and Tongariro Rivers along with the season catch rate estimate for the Hinemaitia River are presented in table 1. The catch rate used is calculated by determining the catch rate of each angler interviewed and then taking the average of all of these.

Despite the outstanding catch rates it appears that the size of the spawning run is not exceptional. For example our counts of spawning fish in selected stretches of the tributary streams are solid by comparison to previous years and the rainbow run through the Waipapa trap to the end of September (3305 trout) is slightly less than for the same time last year

(3478 trout). These are actual totals of trout trapped and do not take into account fish missed during floods, of which there were many in July this year. Nevertheless the catch rates are higher than might be expected solely on the basis of fish numbers and appear to reflect that as predicted, fishing conditions following the February flood have been significantly improved.

On the Tongariro River a number of the pools which were created are proving ideal for holding fish and just as importantly, for fishing for them. For example the trout clearly like to hold in Judges Pool and with its very even current lines and moderate depth it is an easy pool to fish. Added to this there is nowhere in the pool that the fish are out of reach of anglers on one bank or the other – it all adds up to an increased likelihood of an individual fish being caught.

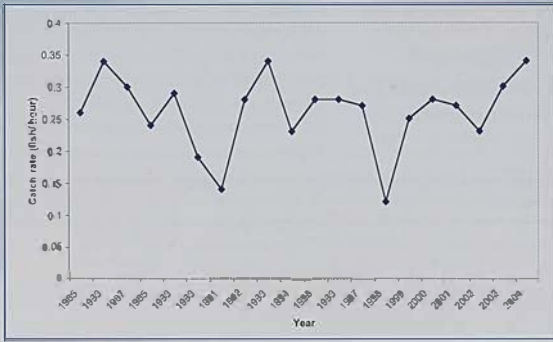
One of the disadvantages of the changes in the river is that anglers have complained of

Table 1: Monthly catch rate estimates (fish caught per hour) calculated for the Taunanga-Taupo and Tongariro Rivers along with the season estimate for the Hinemaitia River 2004.

River	April	May	June	July	August	September	Season average	No. of interviews
Taunanga-Taupo		0.31	0.32	0.43	0.46	0.68	0.45	264
Tongariro	0.13	0.26	0.40	0.29	0.40	0.42	0.34	1103
Hinemaitia							0.50	106

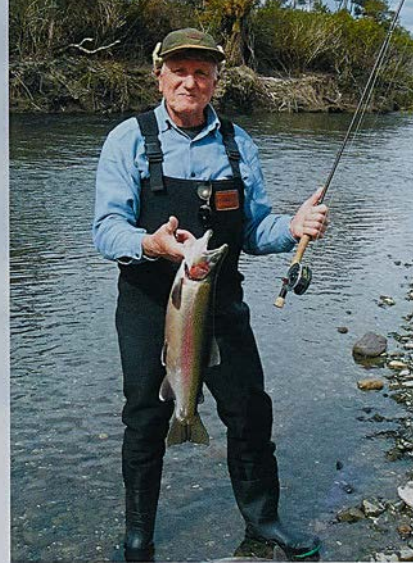
A catch rate estimate of 0.34 fish per hour on the Tongariro represents one fish for every three hours of fishing and is as high as any season estimate over the last 20 years (graph 1). Similarly the Taunanga-Taupo estimate of one fish every 2.2 hours is as high as any time since regular surveys began on the river in 1992.





Graph 1: Season catch rate estimate (per angler) for the Tongariro River 1985 to 2004

over crowding in the popular pools. In part this is simply because these pools have been fishing so well, and as a consequence attracting lots of anglers, but it also reflects that much of the pocket water between the pools is currently missing. This water will develop again as smaller floods modify the river. But until this time it remains difficult for anglers to find quiet spots to tuck themselves



Janek Januszkiewicz with a nice fish taken in September from the Tauranga Taupo River. Photo: Rob McLay

[www.laketaupoproperties.co.nz](http://www.laketaupoproperties.co.nz)



Southern Lake Taupo

\* holiday accommodation to rent

\* property to buy

(07) 386 0030



**FIRST NATIONAL**  
**Tongariro Realty**

MBREINZ

Locally owned and operated.  
Southern Lake Taupo's longest serving Real Estate Company.

away. This lack of pocket water may also increase the vulnerability of trout by further concentrating them in the major pools.

It is interesting that our aerial counts of total anglers on the river just after dawn during June and July averaged 665 anglers per flight

Table 2: Average size of trout kept by anglers fishing the Hinemaiaia, Taurangi-Taupo and Tongariro Rivers 2004

River	Length (mm)	Weight (kg)
Hinemaiaia	515	1.69
Tauranga-Taupo	525	1.66
Tongariro	527	1.77

compared to 71.1 anglers in 2000/01, 77.8 anglers in 2002 and 78.1 anglers last year. This reduction may be an indication of the lack of fishing water outside the main pools, and could also reflect that some anglers may be delaying their visit until later in the season in light

of patterns of fishing success in recent seasons.

Overall anglers recorded better success in the lower and middle sections of the Tongariro River rather than above the Red Hut Bridge. Although later in the season there

certainly were some memorable catches in this section including 25 fish landed out of 35 hooked in 5 hours. While it has been a much more typical winter in terms of the weather and timing of the runs it appears the runs are still about a month later than a decade ago. It was very apparent from our spawning counts

that the main runs arrived in the upper stretches of the rivers in September. Similarly we trapped over 1100 trout in the Waipua trap over September and even in early October were averaging 50 trout a day through the trap.

Overall the size of fish kept by anglers is fairly typical though unusually the fish from the Tongariro have averaged slightly larger than those from the Taurangi Taupo and Hinemaiaia Rivers (table 2).

Out on the lake the early indications are promising for the fishing this summer. Until we complete the acoustic survey in November though, we won't know for certain. The regular rain over winter has washed many of the kels which have already completed spawning back to the lake and they are recovering condition. With the onset of smelt spawning, these fish should make a good recovery as they feed up large on this supply of food. Anecdotally there also appears to be a large number of young fish in the lake which while undersized now, are growing rapidly and should enter the legal sized population by December or January. If the acoustic survey we conduct in November confirms a strong new year class, this will not be unexpected as our monitoring showed unusually large numbers of large juvenile trout in the river before the February flood. So long as these fish survived the flood they should have a better chance than normal of surviving the transition to living in the lake.

After a long hard winter the thought of chasing a trout or two on the lake on a pleasant, warm summer day is certainly appealing!

Dave Scott from Australia was well pleased with his recent visit to the Tongariro River. Photo: Rob McLeay







## RIO PRODUCTS: Fly Fishing's Creative Specialist In Fly Lines, Leaders & Tippet Materials

RIO Products have been in existence only 8 years yet already they have become a major brand internationally in fly lines, tippets and leaders. This is because Jim Vincent and the staff at RIO never stop fishing, experimenting and "tweaking" their products. They are not content just to develop products solely in the lab. Instead they field test and get fishing guides to field test hundreds of prototypes of new products before they are satisfied that they have the products right. RIO use fishing experience and their high-tech production facility to develop fly lines that they believe have the best tapers, slickest coatings and greatest line durability's available.

### RIO Grand Line

The weight forward taper is slightly heavier than what is standard for the line weight which means that RIO Grand lines load rods quicker. This makes them ideal not only for faster action modern fly rods but also for making short quick casts with softer action rods to trout cruising lake edges or backwaters. The heavier taper section also helps cast into typical New Zealand headwinds while the long rear taper makes the line suitable for roll casting as well.

The line has a supple, super slick coating and has a welded loop on the front end for easy changing of leaders. Another advantage of the loop is that when landing fish it slides through the rod guides more easily than a nail knot.

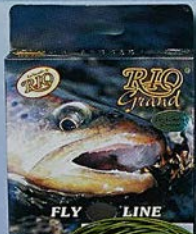
**Colour:** camo green

**Length:** 27.4m (90')

**Ideal for:** an all round floating line that is ideal for typical NZ fishing conditions. Although designed particularly for fast action rods this line is also good for short to medium length casts with softer action rods.

**Available in:** WF5F - WF9F

**RRP:** approx \$110



### RIO Nymph Line

Jim Vincent developed the Nymph line after visiting New Zealand earlier in 2004. When he fished the Tongariro River he saw the need for a line that would cast big indicators and heavy nymphs long distances and be able to be easily mended during a long drift. Later, when fishing in the South Island, Jim experienced the need for a line that could be used to roll cast in tight situations as well as cast short to medium distances into strong downstream winds such as the Canterbury northwester!

As a result of his fishing experiences in New Zealand Jim developed the Nymph line. Amazingly, this one fly line meets the requirements of both fisheries with the 8 and 9 weight lines being ideal for the Tongariro River and the 6 - 8 weight lines great for windy South Island conditions.

The Nymph lines have a high visibility tip which can be used as a strike indicator. However, if this feature is not wanted the taper is such that the tip can be cut off without altering the casting performance of the line. The line has welded loops on both ends for easy joining of backing to the fly line and fast leader changes.

**Colours:** camo green with fluoro orange tip or light green with fluoro orange tip

**Length:** 27.4m (90')

**Ideal for:** heavy nymph rigs, nymph and dry fly fishing into strong winds

**Available in:** WF6F - WF9F

**RRP:** approx \$110



### RIO Accelerator Line

The NEW Accelerator line is an upgrade of the popular Longcast line. Made with Rio's new supple coating, this line is great for tangle free fishing with no memory off the reel. The extra long head that allows more line to be carried in the air, high line speed retention, tight loops and easy shooting, give maximum casting distance.

**Colour:** light green (same as Longcast)

**Length:** 27.4m (90')

**Ideal for:** medium to long distance dry fly and nymph fishing

**Available in:** WF7F - WF9F

**RRP:** approx \$110

See your RIO Stockist for these and other RIO fly lines, tippets and leaders

RIO products are distributed by Tight Lines Ltd

[www.tightlines.co.nz](http://www.tightlines.co.nz)



# Still going strong.... after all these years

By Rob Hood

Rob is a fishery ranger and part of the team that undertakes our field work

Two of the more common questions we are asked are "do trout survive after spawning?" and "how long do trout live?" As with any wild population there are many variables, both genetic and environmental, which will influence an individual's longevity. However the odds of any particular Taupo trout even reaching maturity to successfully spawn at three years of age, is extremely low. Of those that do, only approximately one third of rainbow trout will survive and recover successfully to return to spawn again in later years. The trout that don't survive are either caught by anglers or succumb to the rigours of spawning. With this in mind it becomes apparent that the majority of Taupo rainbow trout that reach maturity will only live until three years of age and spawn only once. On the other hand, brown trout often spawn a number of times and regularly reach ages of 7 or 8 years old.

As part of a mark and recapture population study during 1999 and 2000 we tagged approximately 300 rainbow and 300 brown trout with numbered plastic 'floy' (spaghetti) tags as they passed upstream through our fish trap on the Waipa Stream, a tributary of the Tongariro River. As is usual practice, the species, sex, length and weight of each tagged trout was also recorded. Over the following years, many of the tagged trout have been recaptured, either at the Waipa fish trap again when they return to spawn or by anglers in the Tongariro River or Lake Taupo. With each passing year, the odds of one of the tagged trout being recaptured is less and less.

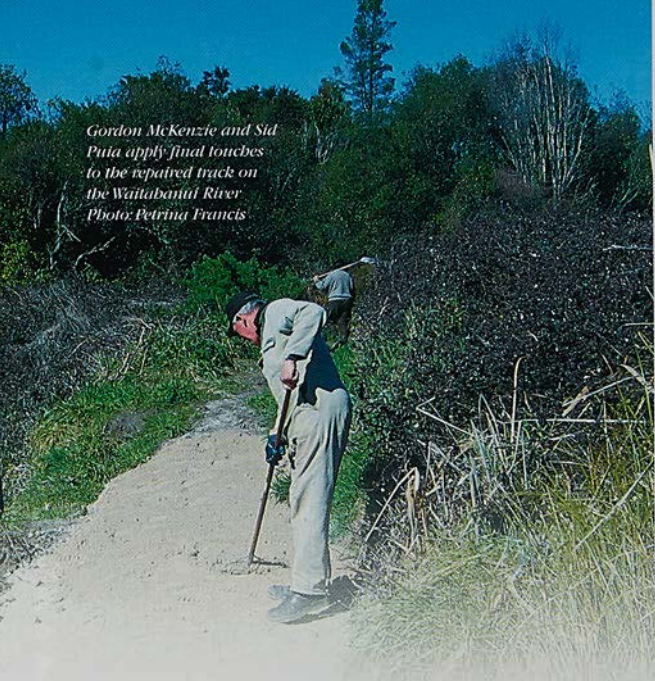
But one feisty brown female trout has conquered the odds. While operating the Waipa trap on the 2nd of August this year, Ranger Callum Bouke noticed he had captured a tagged brown female trout, tag number JO886. This "old girl" was first tagged as a maiden (first time spawner) on 28th April 1999 so is at least eight years old and potentially spawning for the sixth time! She had four 'fin-clips' (cuts made to the fins of a trout by rangers as the fish pass through the trap - a different fin is clipped each year) which indicated she had passed through the trap to spawn on at least four consecutive years. A summary of the key trap information is below. Note the weight loss in 1999 after spawning, and the change in length and size over the years. Since 2003 she has struggled to regain condition. None-the-less she is certainly "made of the right stuff" and we can only hope many of her progeny will flourish. While it gets less likely each year, it will be interesting to see if she reappears next year!

*Brown Female, NO. JO 886, recapture (at Waipa Trap) information.*

Date	Length (mm)	Weight(kg)	Migration (up/down-stream)
28/04/99	530	2.10	upstream
15/08/99		1.75	downstream
02/07/03	645	2.70	upstream
02/08/04	635	2.25	upstream



*Gordon McKenzie and Sid Puia apply final touches to the repaired track on the Waitahanui River  
Photo: Petrina Francis*



# WAITAHANUI TRACK REPAIRS

*by Errol Cuddy*

*Errol is Programme Manager Visitor Assets and responsible for tracks, structures and bridges in the fishery area*

The walking track on the Waitahanui River from the State Highway One bridge to the Cliff Pool on the left (southern) bank is classed as a high priority access track in the Taupo District due its popularity by anglers, walkers and sightseers. Three boggy sections developed upstream of the bridge during recent high lake levels and were marked for restoration.

Taupo Fishery staff Sid Puia, Harry Hamilton and Gordon McKenzie repaired the track during August. Eight cubic metres of pumice were laid out on geotextile cloth and compacted to complete the 27 metre repair job.

The track was immediately popular with locals, reported the repair team.

Custom Fly Rods designed and proudly built in New Zealand

Enjoyed by discerning anglers Worldwide

Superb Distance and control  
Excellent style and finish  
Finest components assured

Used at the World Championships

Uncompromising performance  
Powered by leading edge CTS technology

CrosbyGarret can manufacture to individual anglers' specifications

CrosbyGarret  
Fly Rods



Available at:

Sporting Life  
Turangi  
Ph 07 386 8996

Mooses Sportsworld  
Palmerston North  
Ph 06 358 6989

CrosbyGarret Fly Rods Ph 06 355 1429  
696 Rangitikei Line Fax 06 355 1427

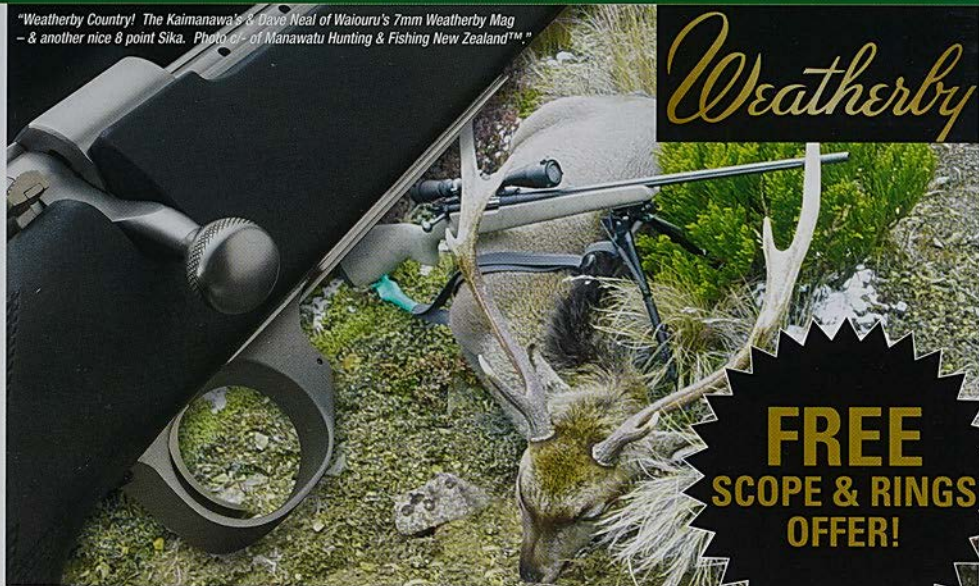
RDS Palmerston North info@crosbygarret.co.nz  
New Zealand  
ctsfishing.co.nz/crosbygarret

# Hunting & Fishing™

NEW ZEALAND™

"Weatherby Country! The Kaimanawa's & Dave Neal of Waiouru's 7mm Weatherby Mag - & another nice 8 point Sika. Photo of - of Manawatu Hunting & Fishing New Zealand™."

*Weatherby*



**FREE  
SCOPE & RINGS  
OFFER!**

## FREE OFFER INCLUDES:

FREE Simmons '8 Point' 3-9x40 Rifle Scope	value \$169.95
FREE Leupold Rings & Bases	value \$99.95
FREE Detachable Sling Swivels	value \$39.95
FREE Safety Cable Lock	value \$19.95
<b>FREE ITEMS TOTAL RRP</b>	<b>\$329.80</b>

Complete with test target and Weatherby Guarantee of Accuracy!

<b>BLUED/SYNTHETIC</b>	<b>\$999.00</b>
<b>STAINLESS/SYNTHETIC</b>	<b>\$1199.00</b>

### WEATHERBY VANGUARD CALIBRE OPTIONS

223, 22-250, 243, 257 Wby Mag, 270, 270 W Short  
Mag, 7mm Rem Mag, 308, 30-06, 300 W Short Mag,  
300 Win Mag, 300 Wby Mag, 338 Win Mag

**SCOPE  
UPGRADE  
OPTIONS!**

**UPGRADE YOUR PACKAGE TO BUSHNELL'S FAMOUS  
DUSK & DAWN 3-9X40 SCOPE (VALUE \$279.95)**



Blued/Synthetic - Bushnell Combo \$1099.00  
Stainless/Synthetic - Bushnell Combo \$1350.00

**FOR THE ULTIMATE PACKAGE - UPGRADE TO LEUPOLD!  
VX1 3-9X40 (VALUE \$449.95)**



Blued/Synthetic - Leupold Combo \$1299.00  
Stainless/Synthetic - Leupold Combo \$1599.00

**In total 18 specialist stores nationwide. Freephone 0800 Hunt Fish (0800 486 834)  
Check out our website: www.huntingandfishing.co.nz**



# Hunting & Fishing™

NEW ZEALAND™

## Trout Jig Combos

**Abu Garcia**

### SUPER TROUT JIG COMBOS! — Featuring Ambassador Gold 6600 'Brute'

Rod — Abu Ultracast Pro

- SS304 Stainless steel guides for strength, lightness and abrasion resistance to super lines
- Trigger grip balances reel for comfortable one handed control
- Integrated solid tip provides added strength while providing a forgiving fish fighting action

**EXCLUSIVE**  
NOW AVAILABLE AT  
ORDINARY TACKLE  
STORES



Price includes professional set up with top shot of 50m Braid Superline and mono backing

**\$259.95**



Upgrade Option

**Upgrade Option:** Berkley Graphite Gorilla Stick Complete with Super Line and backing

**\$299.95**

Both combos make great salt-water light tackle outfits



Entry level combo for only  
**\$99.95!**

Strike Power SP250

- 2 Ball Bearings
- High Speed 5.2:1 retrieve
- Gold Alloy Spool
- Stainless Counter Balanced Handle
- Loud Strike Alarm
- Level Wind — line layering
- Star Drag

**SILSTAR**

Rod — Silstar Power Tip

- Tubular Design — one piece 5'6"
- Integrated solid tip technology for 'feel' and strength
- 9 Guides — all under and over bound
- Composite Trigger Grip — and EVA handles

Free Professional set up including backing and Superline 'top shot'

**SHIMANO**

### SUPERB TROUT OR LIGHT SALTWATER JIG COMBO

Our most popular entry level combo last season



Only  
**\$149.95!**

Price includes set up, backing & 50m braid

Rod: Spectrum 2 pc Trigger 5'6"

- Stows easily in car or boat
- Gets around legal fisheries loophole regarding the number of rods/anglers on board when broken
- Integrated hollow glass/solid tip

Reel BC200

- Power Handle
- Quickfire IP® Clutch Bar Casting System
- Stainless Steel Ball Bearing
- Friction & Magnetic Cast Controls
- Graphite Spool & Body
- 5:1:1 High Speed retrieve

### HALOGEN TROUT OR SALTWATER JIG COMBO

Reel — Halogen HG250

- Smooth 3 Ball Bearing operation
- Bullet proof alloy casing construction
- Blue anodised aluminium spool for strength
- Double action stainless handle with rubberised grip
- Thumb-bar line release for quick one handed operation
- Superline level wind system for 'fingers clear' operation

Rod — Halogen 561CAM

- Lightweight tubular graphite construction
- Fuji trigger grip reel fitting
- Beautifully finished rod with colour coordinated (Halogen blue) bindings and guide inserts.
- Ergonomic EVA grips
- Free professional set up including backing and Superline 'topshot' — value at around \$20.00.



**okuma**

Quality you won't believe possible for only  
**\$199.95**

In total 18 specialist stores nationwide. Freephone 0800 Hunt Fish (0800 486 834)

Kerikeri now open Gisborne opening December

# Good fishing manners, common co

by Rob McLay

Rob is Programme  
Manager Field  
Operations and a very  
keen Tongariro River  
angler

In most trout fisheries throughout New Zealand it is still common to fish your chosen stretch of water with out seeing an other angler. If you arrive at your favourite fishing spot and it is already occupied, you simply move on to somewhere else. Alternatively, you and your fellow angler may strike up a conversation and reach an agreement about how to share the general area; e.g. "I'll walk up and leave you a kilometre of water before I start" or "if you're fishing up then I'll head downstream". Rarely would such an agreement result in two or more anglers simultaneously fishing the same place. This principle is generally accepted across the board and there are few arguments.

In the Taupo fishery, things are a bit different in that there is usually far more anglers than there are preferred fishing locations. For example, on our aerial angler counts through the peak winter river fishing period, it is normal to count 80+ and sometimes over 100 anglers fishing the Tongariro at any one time. Given there are only 35 pools and a few other preferred pockets and runs in the river post the February flood, that would leave the majority of anglers looking for somewhere else to fish if the principle of one angler per fishing spot were to apply. The reality is that more often than not there are no vacant alternative desirable places to fish and it is inevitable that anglers will have to share the same water. In these situations, the potential for conflict is high and therefore it is necessary for anglers to collectively adopt and implement a code of practise that allows everyone a reasonable opportunity to fish.

That said, fishing etiquette in the Taupo District continues to be an issue. Some anglers need to be reminded that there is a longstanding code of practise that anglers voluntarily adopt to make fishing the rivers and the lake an enjoyable experience for everybody.



*Never push in on an occupied pool without at least the courtesy of asking those already present whether or not it is okay with them.*





# Courtesy and understanding the code



*Above left: Fishing too close will restrict casting and cause inevitable tangle of lines.*

*Photo: Petrina Francis*

*Above right: If a pool is full, wait patiently on the bank until someone leaves or move on to another spot.*

*Photo: Rob Hood*

## On the rivers:

- If you are fishing one of the smaller rivers and find that a pool is already occupied, leave the angler to it and move onto a quiet stretch.
- If you are fishing a major river with popular pools, such as the Tongariro River:
  - o Always enter the pool behind any angler already moving through the pool;
  - o If the pool is full, wait on the bank until someone leaves or move on to another spot;
  - o If you are sharing a pool keep moving through it steadily
  - o Never push in on an occupied pool without at least the courtesy of asking those already present whether or not it is okay with them.

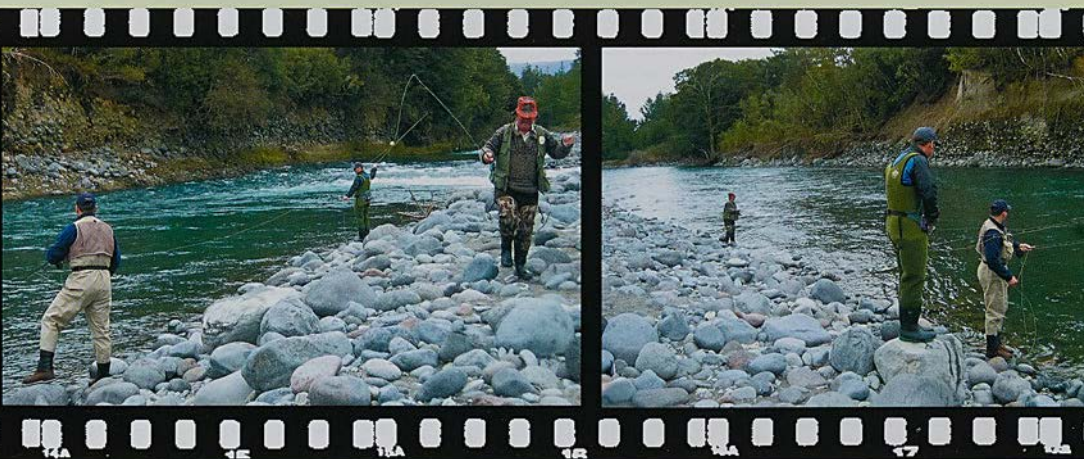
## In all cases:

- If an angler beside you hooks a fish leave them room to play it and allow them to return to the position after they have landed it.
- If you are the lucky angler and have hooked several fish in succession in one spot then move a few steps so that everyone else gets the same opportunity.
- Don't be so close to another angler that you restrict their casting.

Occasionally an angler moving upstream nymph fishing will encounter a downstream angler wet fly fishing. Be patient and considerate and respect each other's preferred fishing method. It is possible for these two anglers to pass each other happily.

## On the lake:

- Anglers trolling or harling can have up to 200 metres of line trailing behind their boat. Give them plenty of room behind their boat before cutting across or you may cut their line.
- When parking your boat at a popular spot on the lake for jiggling or fly-fishing, give other boaters room to cast. Do not park your boat so close to another boat that you limit their ability to fish.
- When two boats meet head on they should each alter course to starboard (right) to avoid collision. But if you are on the offshore side avoid forcing the other boat in to shallow water where their lines might foul.



# HOW MUCH DO YOU VALUE TAUPO TROUT



by Petrina Francis

*Petrina is Programme Manager Community Relations. In this article she gives a gentle reminder how fortunate we are to have the Taupo trout fishery*

It is strange that human nature often means we take for granted what we enjoy most or that surrounds us. Until one day that 'thing' is gone and then we wish we had stopped to enjoy and value it more! It is easy to take the Taupo trout fishery for granted. For those of us who have spent years coming to the lake and rivers to fish, or who have family holiday homes or live in the district, we don't often stop to think of how important the fishery is to the area. Imagine 'Taupo or 'Tunangi without trout! It is difficult to do isn't it, because trout are entwined into many of the things we value most about Taupo. How do you put a value on trout? Value is a misleading word to use because we tend to equate it in monetary terms. Although the trout fishery at Taupo is very important to the local and national economy, there are other values to the community from the fishery that are less easy to define, and therefore easier to forget. When put together, these make the fishery an incredibly valuable asset.

Take for example, the fact that the fishery is wild and self-sustaining. A popular misconception is that Lake Taupo is stocked with hatchery grown trout. And yet we have this fantastic wild fishery that (with careful man-

agement) looks after itself providing lots of wild fish for anglers to catch. In many places around the world it is almost impossible to catch a wild trout anymore, the fisheries instead maintained by stocking regimes that have been in place for many years. The Taupo District is special in that it still has all the necessary elements in the environment to support the habitat and life cycle of trout. Lots of rivers and streams feeding into the lake mean plenty of spawning areas and habitat for young fish. And what we often take for granted about Taupo trout are the perfect specimens that are caught. New Zealanders tend to measure fishing success by the size and number of fish caught; however many overseas anglers see catching the perfect specimen as just as important. The Taupo environment is a relatively harsh setting in which only the best fish survive, producing outstanding specimens. Taupo trout do not have the characteristic deformed dorsal fin trait of fish that have spent time in hatchery conditions. The perfect example of a wild trout encompasses to overseas anglers what they see New Zealand as - a clean, green and pristine environment. What about the recreational value? The Taupo fishery supports two very different





*From the solitude of fishing a small stream mouth at the southern end of the lake to the popular big strong pools of the Tongariro River - the Taupo District provides anglers with an interesting selection of experiences to enjoy in the one geographical area.*

*Photo: Petrina Francis*

species of trout, each providing their own unique challenges. Not only is there a very productive rainbow fishery, but also trophy brown trout. This allows for a range of fishing techniques and challenges. Within a relatively small geographic area, anglers can choose from a wide selection of fishing methods including fly-fishing on the rivers and around the lake edge, trolling, jigging, harling and downrigging on the lake. In all, Taupo provides 40% of the freshwater fishing enjoyed in New Zealand each year.

How often do we remind ourselves how fortunate we are to have a 'year-round' fishery? It is like a full year sporting event that everyone can take part in. In many other fisheries around New Zealand rivers are closed over the spawning season and 1st October each year is eagerly awaited by river anglers. The lower parts of the major rivers at Taupo are open even during the spawning season and there is great summer fishing on the lake when trout return to feeding on smelt. And once again, within a relatively small geographic area is a wide variety of fishing landscapes - the strong current and deep pools of the Tongariro River, the small stream mouths on the western and southern bays, the open spaces of Lake Taupo, the solitude of Lake Kurauro and the wilderness fishing of Lake Otamangakau.


Often though, the social value of the fishery is forgotten. As a food source, providing sustenance and a meal for the table, trout fulfil a basic need. Local iwi regard the trout resource as a taonga or treasure, as it is intrinsically interwoven with the values of their communities. A trout features prominently on the crest of the Tuwharetoa Maori Trust Board along with images of the lake and mountains. Trout are something held dear and close to the heart of the local community.

And let's not forget that socially the fishery encourages people to interact with others - whether it is a group of anglers gathered at the side of a popular Tongariro pool, or those participating in a social fishing competition, or

people congregating at one of many angling clubs in the district. Trout provide social opportunities as a recreational pursuit the whole family can enjoy and a chance to hand down knowledge (and fishing stories!) from generation to generation. The fishery provides employment and business opportunities which help towards a positive feeling in the local community.

Trout also give the community a sense of responsibility and the need to protect and value a resource. When the community was asked what they value most about Taupo in the Taupo-nui-atia 2020 project, one of the 14 identified values was 'good trout fishing'. This sat alongside water quality and recreational opportunities. Trout are often seen as an indicator of the health of the area - if the fishery is doing well, then other things such as the environment must be in good shape. If lots of anglers are seen coming in to the area to fish, then the economy must be buoyant and tourism will be doing well. Even if people in the community do not fish for trout themselves, it is just as important to them that the fishery is in good condition as it represents a guide to how the whole of the district is faring.




But what about the monetary value? Just what does the Taupo trout fishery contribute in monetary terms into the economy? In 1991 the National Research Bureau carried out a survey on the annual economic expenditure on recreational fishing in NZ. At that time, expenditure annually was estimated to be 745 million dollars. This amount was



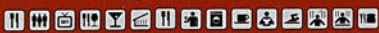
## Parklands Motorlodge

HOTEL COMPLEX • CONFERENCE CENTRE • RESTAURANT AND BAR

The ideal base for skiing, fishing, tramping, rafting and exploring the Tongariro National Park. Best Western Parklands Motorlodge features 21 comfortable ground floor units - 12 Studio Units sleep 1-2 persons, 19 One bedroom family units sleep 1-5 persons all with kitchenette. A 20 point Motorhome Park and ample parking for vehicles and boats. Coach groups welcome. 35mins to Whakapapa Skifield, 2 minutes to the Tongariro River. A great base Summer or Winter.



Cnr State Highway 1 & Arahoro Street, Turangi  
Freephone: 0800 456 284, Ph: 07 386 7515, Fax: 07 386 7509  
Email: info@parklandsmotorlodge.co.nz  
www.parklandsmotorlodge.co.nz





*It is easy to take for granted the abundant wild fishery at Taupo. These spawning fish in the Waipa Stream have all the necessary elements in the environment at Taupo to thrive.*

*Photo: Dave Scott*

*It doesn't get much better than this for many anglers. What is often taken for granted are the perfect specimens that Taupo produces - the envy of many overseas anglers.*

*Photo: Rob McInay*

apportioned out to each area relative to the estimated percentage of people that fished in that area. At that time, 8.2% of people fishing in NZ fished at Taupo. Assuming that annual expenditure related to the Taupo fishery is proportional to the number of people who fished here, this equated to \$61 million dollars in 1991. Adjusting this figure to account for changes in the Consumer Price Index gives a conservative estimate now of \$70 million per year into the national economy. This is a large amount of money! If divided into the amount of licences sold each year at Taupo, this equates to an average expenditure per year of approximately \$1100 for each licence sold. This is money spent on airfares, car travel, boat fuel and running costs, boat charters, accommodation, food and equipment. However it does not include capital expenditure. Think of

the person who bought a boat specifically so they could fish Lake Taupo, or the family that loved their fishing holiday so much they decided to buy a bach in the area. Imagine if we could factor capital expenditure on items such as these into the equation! And with tourism the largest economic contributor to the Taupo District in 1998, bringing in \$90 million to the local economy, it is safe to assume that a large part of this is associated with the fishery. As a "year round" sporting event, the fishery contributes to the local economy all through the year, rather than just seasonally as most other activities do.

It is interesting to look at who makes up the angler melting pot at Taupo. Analysis shows only 25% of anglers fishing the lake are locals from the Taupo/Turangi area. Everyone else travels into the area, largely from around New Zealand with a smaller percentage of anglers coming from overseas. This same pattern is reflected in river fishing. For example on the Tongariro River, 19% of those fishing are locals with 72% coming from around New Zealand and 9% from overseas. This means a huge number of visitors come into the area all through the year, generating value to the local economy, drawn by the lure of a fantastic trout fishing experience.

And who pays to provide and look after this valuable resource? Well, it's the anglers at Taupo themselves. The fishery is totally funded by revenue from fishing licence sales. It receives no other money from central or local government, unlike many other elements of





the recreational and commercial sector. All the benefits that come in from a team of people providing access tracks and structures, conducting monitoring, research and law enforcement in the area, providing angling information and fighting battles to protect the habitat and environment, is paid for by anglers. The whole community benefits - in fact the whole country benefits, as a result

So the fishery has many values - physical, recreational, social and monetary. All benefit the community at Taupo and Turangi, and all come together to produce the trout experience enjoyed by thousands of people each year. Let's stop and take a minute every now and then to pinch ourselves and relish how lucky we are to have this valuable asset, right on our back door step!

## TAUPO SPORT FISHERY Management Plan Review

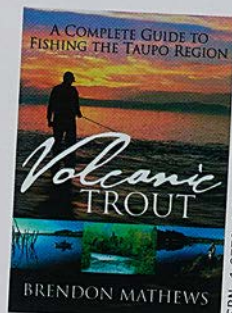
**T**he Taupo Sport Fishery Management Plan outlines the goals and objectives for managing the Taupo fishery. It is a strategic policy document providing direction for fishery managers and is a statutory guide to what we can and cannot do with the Taupo fishery.

Ten years have passed since the plan was first implemented after extensive public consultation, and it is now time to review it to see if it is still appropriate. It is very important that you as anglers have input into how your fishery is managed. Shortly we will release a draft of the suggested goals and objectives and we will appreciate your thoughts on the appropriateness of these. These are drawn from the existing plan, incorporating amendments to take into account changes over the last 10 years.

### Volcanic TROUT

A COMPLETE GUIDE TO  
FISHING THE TAUPO REGION

BRENDON MATHEWS



With 17 maps and over 200 colour photographs RRP: \$44.95

*"...a fantastic Christmas present for all anglers  
from the occasional to the passionate."* Reel Life

Check out Brendon's website at [www.volcanictrout.co.nz](http://www.volcanictrout.co.nz)

Available at your bookseller and good fishing stores

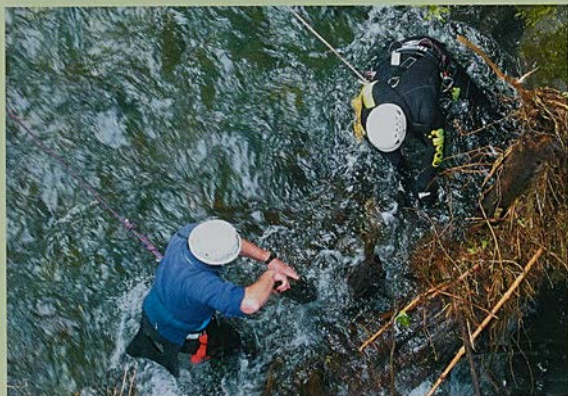
A Shoal Bay book published by Longacre Press

# An easy way to make a **DIFFERENCE**

by Rob Kirkwood

*Rob is a fishery Ranger  
and also undertakes  
much of our field work*

Every winter we undertake regular escapement counts by drift diving or walking to count the numbers of spawning trout in six key Taupo tributaries. In August a count of only 39 fish in the upper Whitikau Stream rang alarm bells. This was a very low count and there had to be a blockage somewhere that was preventing fish moving upstream. Sure enough an inspection downstream revealed a two metre high waterfall within the Whitikau Grotto created by the combination of a large log and numer-



*Glenn Maclean and Rob Kirkwood begin removing the blockage by pulling out small debris wedged around a large log.  
Photos: Mark Venman*

ous branches wedged beneath it. In this grotto area the river passes through a narrow rock chasm and the presence of dozens of fish immediately below the waterfall indicated the severity of the obstacle.

It was decided to send a team of people into the stream to assess the blockage and try to remove some of the debris by hand. By removing the smaller logs and branches a scouring effect was created and quite quickly large holes appeared under the log. It was crucial that staff remained safe and avoided being swept away, and so the team wore safety harnesses clipped to ropes that were anchored back to a rock wall. These ropes were fully adjustable and the length of the rope controlled by other staff members back at the anchor.

Within a two hour period the waterfall was

removed with the bed which had built up upstream scouring back down to its original level. Even before the job was complete we could see large numbers of trout swimming up past us in their quest to finally get to their spawning grounds.


Maintaining fish access to spawning tributaries is a practical but very important aspect of managing a wild fishery. By removing this log jam we retained 8.5kms of superb spawning terrain which otherwise would have been unavailable. The coarse spawning gravels, pristine river conditions and cold clear water make the Whitikau Stream one of the best spawning sites in the Taupo district, indeed probably in the world. The stream is also ideal for rearing of fry and juveniles.

If this blockage had gone unnoticed then the outcome would have been very different. Monitoring of spawning fish in the upper stream has shown us that at peak times counts of 900 trout are possible. With no access to the upper reaches, these fish would ultimately have to spawn in the lower section of the river which is already saturated with spawning fish. Instead of laying 1 to 1.5 million eggs in the vacant headwaters these fish would be forced to dig up existing redds destroying the eggs already laid. Simply a waste and certainly a lost opportunity.

Furthermore, once these eggs hatch each of the young fish needs its own little piece of suitable space. There are only so many suitable areas in each stream and once they are full the rest of the fish are out of luck and pay the ultimate price. A gain those fish hatched in the upper Whitikau have an additional 8.5km of river within which to find a home, rather than compete for a site with their brothers and sisters in an already full lower river.

The upper Whitikau is now full of fresh redds and spawning fish. So long as the weather is kind to the fry in the future, then we should reap the rewards from the efforts of the team in discovering and then removing the blockage, and thus allowing fish to be able to return upstream. An easy way to make a big difference to the Taupo fishery!



An aerial photograph of a stream with a log jam. Two workers in safety gear are in the water. The water is turbulent and white with foam. The surrounding area is rocky and has some green vegetation.

*The waterfall created by the blockage on the Whitikau Stream was two metres high and impossible for spawning trout to negotiate.*



# EXCITING NEW PROJECT IN THE TONGARIRO RIVER

by Dr Michel Dedual

*What do anti-theft devices and juvenile trout have in common?*

*Dr Michel Dedual answers this question while explaining a fascinating new project we are about to begin in the Taupo fishery.*

One of our key roles as fishery managers is to know as much as possible about the ecology of trout in order to make the right decisions. Even though our knowledge of the life cycle of trout in Taupo has advanced substantially during the last 20 years, there are still some "black boxes" that need to be unlocked.

The size of the trout population in Taupo depends largely on the number of fish growing in the rivers to a sufficient size that allows them to survive once they enter into the lake. However just how big the fish need to be and the effect of timing of entry to the lake on survival, is very much unknown at the moment. It would be simple enough to shed light on this if we could follow and track different generations of juvenile fish knowing when and at what size they entered Lake Taupo and then count how many adults eventuated from each group. The relationship between the number of juvenile fish and subsequent adults is called the stock-recruitment relationship. If this relationship is understood then by monitoring aspects of the juvenile population we can forecast how many adults will be available in three years time.

It would also allow us, for example, to assess whether the major flood we had last February was beneficial or detrimental. For instance it is conceivable given the dynamics of the smelt population, that the survival of

fish entering the lake in February is higher than fish entering several months later, even though the later fish will be larger. This forecast ability is the "holy grail" of fishery management. It would assist us to take preventive decisions when necessary in anticipation of a low adult population several years later and to relax the fishing regulations when the forecast production is very high.

However this is still a dream and one that is made difficult by traditional research techniques. Because trout in Taupo spawn all year around there is no clear separation between generations which in turn prevents the construction of the desirable stock-recruitment curve.

However there may be another way of somehow hacking into the black box. If we could follow individual fish then we could establish any common patterns amongst the few fish that survive to reach adulthood. This type of information is usually obtained by marking and recapture experiments where fish are tagged and later recaptured, generally by electric fishing. However, to obtain reasonable estimates, lots of juveniles need to be tagged and many recapture operations carried out. Electric fishing is time and resource intensive and it is still difficult to assess such factors as when the fish actually enter the lake and at what size.

There is though a small device that may be able to help us with this problem.

Most of you have seen at the entrance of shops two vertical panels that will ring an alarm when someone passes with an item having a flat round grey tag still attached to it. These tags are called Passive Integrated Transponders or PIT tags (Figure 1). PIT tags can also be packaged as very small glass tubes containing an integrated circuit chip



*Figure 1: A hand held PIT tag detector and four different types of PIT tags used at the National Institute of Water and Atmosphere, Hamilton. Photo: Michel Dedual*



and a coiled wire creating a magnetic field. When the tag passes through an electric field (the vertical panels at the shop's entrance or a hand held reader) it is activated and its number and the time it passed through recorded and logged into a monitoring facility.

PIT tags have several desirable features for fish studies. First they are compact so that they can be inserted into small fish about 10 cm long. Secondly, they carry a unique code enabling identification of individual fish. Thirdly, they are not powered so they don't have any battery and last for ever and last but not least, they are cheap. As the tag is read, data about that particular fish is fed into a computer for use in research studies. By deploying recording stations at strategic locations in a river system it is possible to follow the progress of the tagged fish in detail.

The major disadvantage is that the fish has to swim very close to the electric field for the tag to be read. In the past this limited the use of these tags to those situations where the fish could basically be passed through a small gap, or under a hand held reader, such as in a fish trap or ladder or on a processing table. However scientists have now devel-

oped flat rectangular aeriels which detect any fish swimming up to a metre or so above. Furthermore, they can link a series of these aeriels together to cover the whole width of a river bed for example.

In NZ, Dr Jacques Boubee of NIWA has successfully used this technology to track the movements of coarse fish and eels in the Waikato basin and it would seem to offer huge opportunities for us, albeit there are some practical issues to overcome.

Initially we plan to insert PIT tags in juvenile rainbow trout caught at different sizes and at different times of the year in the Waipa Stream and to deploy a monitoring station at the Waipa trap (Figure 2). This station will record when the juveniles move downstream into the Tūngariro River and more interestingly when they come back as adults to spawn. Additionally rangers will scan your catch, using small hand held wand during routine surveys on the lake and in the rivers to record any PIT tagged trout. This data will allow us to estimate

1. what is the best time for migrating downstream i.e. what type of fish provide the best return of adults
2. the growth rate of the fish

# FINICKY FISH CHOOSE

## Fluoroflex Plus®

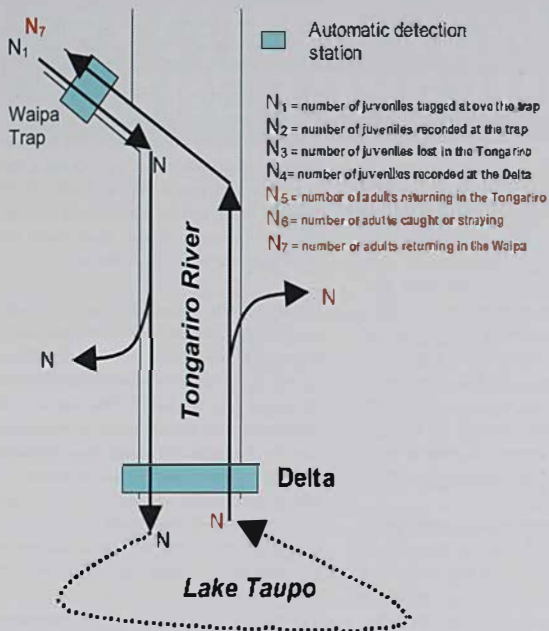
Not Intentionally of Course!






What kind of sick-headed nut goes after desperately hard to catch fish? Often it's the nut carrying RIO Fluoroflex Plus.® It is the strongest, thinnest, most flexible 100% fluorocarbon tippet material you can find. Made specifically for the strongest, fattest, most obnoxiously savvy fish you can find.

**RIO PRODUCTS** | Fly Fishing's Creative Specialist in Fly Lines, Leaders & Tippet Materials™  
 Distributed by Tight Lines Ltd. [www.tightlines.co.nz](http://www.tightlines.co.nz)



3. the age at return and
4. the proportion of fish caught by anglers.

Assuming this is successful, in a second more ambitious step we will try to record tagged fish traffic at the Tongariro River Delta to gain further information on

5. the time it takes for the juveniles to move downstream to the lake
6. the importance of size and timing on entry into the lake for survival
7. the effect of flow on travel through the river and
8. the time when adults move from the Delta to the Waipa trap.

It is this second stage which if successful will really unlock the black box and move our understanding and management into a whole new level.

So lots of interesting information for the research team to look forward to! We will keep you updated with the progress of these experiments in future issues of *Target Taupo*.

Figure 2: Information on juvenile and adult rainbow trout that may be obtained by our project to use PIT tags in the Tongariro/Waipua river system

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, tramp 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/anglersparadise>

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

**AA HOST ACCOMMODATION**

## OMISSION - WAIHAHA RIVER ACCESS

In the last issue of *Target Taupo* we advised that anglers should use the safe walking track located at the boundary of the Hingate Scenic Reserve which passes through land administered by the Waihaaha Maori Lands Trust.

What was omitted was that the track passes over another parcel of private land owned by David Lloyd Properties Ltd. The boundary of this land is approximately 141 metres from the foreshore and the owners have allowed angler access for more than fifty years across it, so long as no fires are lit or damage done.

We apologise for not recognising this in the article, and would like to stress that we are very appreciative of anglers being permitted to access the Waihaaha River mouth.





The photographs are numbered in sequence, with photos 1-3 below, and photo 4 above.

Photo 1: DOC structural engineer, Alan Dallas (left) and Tongariro Conservancy Recreational Planner, Peter Devlin, discuss arrangements prior to the load testing. The empty green bladders can be seen strapped to the bridge.

Photo 2: The bridge during the test with a full load of 3.5 tonnes.

Photo 3: Structural stress is checked during the test.

Photo 4: .....The bridge passes the test and bladders are drained.

Photos: Errol Cudby

## LOAD TESTING THE MAJOR JONES BRIDGE

The Major Jones Bridge was repaired and back in use at the end of May this year, after sustaining severe damage in the flood of 29 February (Target Taupo Issue 46). However, before being given the final sign off by the department's structural engineer, the bridge's load carrying capacity had to be tested. The bridge has a load limit of 10 persons. The test was to be at 3.5 times the maximum load, ie. 3.5 tonnes.

Rather than asking 35 people to line up on the bridge, the testing was carried out by filling two plastic bladders with water to the required weight (3500 litres) and measuring deformation of the bridge structure. The bladders were rigged so that they could be drained without venturing on to the bridge if any signs of failure appeared.

Although it bent and buckled under the load, none of the structural components moved and the bridge passed its test with flying colours.





# HINEMAIAIA

## TRAPPING TRIAL MEETS TARGET

by Glenn Maclean

*Below left: Mark Venman stands high above the Hinematata River upstream of the HB Lake, as he tracks the movement of radio-tagged trout.*

*Below right: The community surrounding the HB Lake and Pahikohuru and Kakapo Streams is rugged and steep which caused some issues with the radio-tracking.*

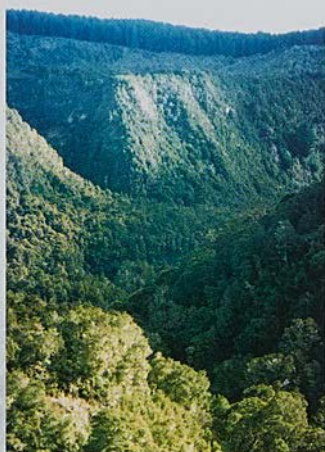
**I**n September we completed the final fortnight of our trapping trial to capture trout in the bypass channel below the HB Lake on the Hinemaiaia River, and to lift these fish above the dam. We were undertaking this programme on behalf of TrustPower who are required to facilitate fish passage above the dam as part of their consents to operate the Hinemaiaia Power Scheme. There are several ways that this could be achieved in the long term, and in order to assess the feasibility and logistics of the trip and transfer approach, this trial was conducted over winter.

Over the four trapping periods of a fortnight each, 225 adult rainbow trout were captured, transferred to our tanker, and released again above the dam. This easily exceeded the consent target of 200 fish. Interestingly despite the perception that Hinemaiaia trout tend to be larger than elsewhere in the fishery, these fish only averaged 502 mm in length and 1.6kg in weight.

The fish were lifted above the dam to allow

them to once again spawn in the Pahikohuru and Kakapo Streams, which were key spawning tributaries prior to the building of the dam. One of the issues we face in terms of establishing the run back in these streams, is that the trout we are currently trapping have most likely been spawned in the bypass channel. Trout normally try to return to where they were spawned and by putting these fish above the dam they are in totally unfamiliar waters.

We expect it will take a little while to establish the runs back in these streams. To monitor what the fish did once released above the dam, we regularly checked the spawning streams. We also radio tagged 17 of the fish using tags recovered from last years Tongariro River study. Twice a week the locations of these tagged fish in the lake were checked, to build up a picture of their behaviour. This was not the easiest task as the lake and stream valleys are very narrow with steep sides that twist and turn in a tortuous course. The upshot of this is that it is







Above: The mouth of the Pūkōhuru Stream.

Above right: Looking up the Pūkōhuru Stream. The stream provides perfect habitat for trout and was a key spawning tributary prior to the building of the dam.

Photos: Glenn Mudean

very difficult to obtain a line of sight over some of the system and there are areas where the radio signal is lost. The radio tracking indicates that the fish move back and forth all over the lake, presumably looking for suitable spawning areas. We also observed some fish in the spawning streams and kets that had clearly spawned, recovering at the dam. So early indications look promising. The next step in this project to evaluate fish passage, is to investigate the survival of juvenile trout passing through the power house turbine as they migrate down stream. This trial is planned for later in the year.



**HAINESHUNTER<sup>TM</sup> COUNTRY**

THE SF535

**HAINESHUNTER**

THE SECRET IS IN THE RIDE

Authorised Central North Island Haines Hunter Dealer. Enquire about our new boat packages now.

Call "The Boatmen"

**Trev Terry Marine Ltd**  
Lake Taupo [www.trevterrymarine.co.nz](http://www.trevterrymarine.co.nz)

Nukuhau Street, PO Box 1038, Taupo Email: [sales@trevterrymarine.co.nz](mailto:sales@trevterrymarine.co.nz)  
Ph: (07) 378 7779 Fax: (07) 378 8166 A/h: (07) 377 0897

**YAMAHA** **EVTRADE** **JOHNSON**

It's been 70 years and the best.

# Promising season ahead for Lake O anglers

by Mark Venman

Mark is our Technical Support Officer

Lake Otamangakau (affectionately called "Lake O" by many anglers) was opened up again to fishing on the 1st of October, after being closed over the spawning season. In this article Technical Support Officer Mark Venman reviews the trapping done over the winter and looks at fishing prospects on the lake for anglers this summer.

This winter completed our eleventh consecutive trapping season of the Te Whaiu Stream. The Papakai Stream (a side tributary) was also trapped for the ninth successive year. These are the only significant spawning streams of Lake Otamangakau. Rainbow and brown trout are trapped in both streams to monitor the overall state and health of the trout population and identify trends over the years. This article summarises the results of this year's trapping programme and compares the data with recent years.

The Te Whaiu and Papakai trips were operated from April until August, which covers the total spawning run of both species. Unlike the Taupo fishery, the timing of the spawning runs is much more defined in Lake Otamangakau.

The highest monthly rainfall occurred during June this year with 424mm recorded at the trap sites. This coincided with the peak in both the brown and rainbow trout runs in the Te Whaiu Stream. Apart from April where just 46mm of rain was recorded, the remaining months were relatively wet with rainfall exceeding 200mm every month. Overall, the 2004 trapping season was considerably wetter than last year with an additional 400mm of rain recorded.

Although smaller than the Te Whaiu Stream, the Papakai Stream produces a reasonable run, with brown trout making up the greater majority of the fish. Runs tend to range anywhere between 80 and 350 fish with both this year and last producing good numbers. Two hundred and seventy fish ran the stream in 2003 and 320 this year. A maximum of 354 trout were counted during the winter of 2002, making the 2004 run the second highest since trapping began.

The brown trout run in the Te Whaiu Stream was down very slightly in comparison to the previous four years although it appears the population is currently stable at around 1000 adult fish. However, the rainbow trout run was higher than the previous two years with a total of 1425 fish being recorded. Figure 1 shows the adjusted runs of trout by species through the Te Whaiu trap over the eleven year period.

In comparison to last year, the average length and weight of female rainbow trout (578mm and 2.48kg) has decreased slightly (Tables 1 & 2) while rainbow males have shown a slight increase (599mm and 2.7kg). Despite females appearing smaller and lighter, the average condition factor for females has increased from 43.7 in 2003 to 45.5 in 2004. A smaller increase in average condition factor was also found for males trapped during 2004 (Table 3).

The average size is affected by the increase in population size associated with a strong new year class coming through. The large number of maiden fish indicates good recruitment in recent years. During 2004, female brown trout were on average longer and heavier (570mm and 3.25kg) than those trapped the previous season but were on par with those trapped during the winter of 2002. Male brown trout also showed a slight increase in length and weight (609mm and 2.7kg) over those trapped during 2003. Condition factors for both sexes of brown trout also increased slightly.

A total of six trophy-sized rainbow trout, greater than 4.54kg or 10lbs, were trapped during 2004 which is four more than last year. The heaviest fish trapped was a rainbow male weighing a hefty 5.45kg (12lbs) and measuring 765mm in length. One 10lb brown was trapped during 2003, but no browns over 10lbs were trapped this year.

It was also encouraging to see an increase in the number of rainbow trout weighing 3.6kg (8lbs) or more. A slight increase in the percentage of brown trout over 3.6kg was also observed from 1.7% in 2003 to 2.5% during 2004. However, the most significant increase was amongst rainbow trout,

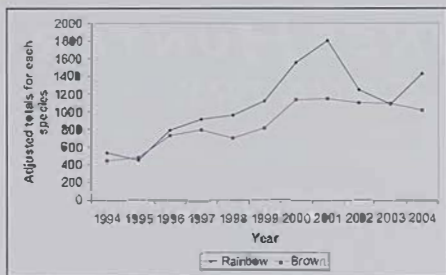


Figure 1: Number of trout trapped in the Te Whaiu Stream between 1994 and 2004 (adjusted to take into account fish which bypassed the trap during floods).



Table 1: Average length (mm) of trout trapped in the Te Waiata Stream between 1994 and 2004.

Species / sex	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>RF</b>	600	615	600	586	586	540	556	590	607	587	578
<b>RM</b>	593	616	623	600	587	530	567	607	618	583	599
<b>BF</b>	572	599	597	570	579	534	530	551	574	555	570
<b>BM</b>	599	627	622	611	606	575	571	596	621	607	609

Table 2: Average weight (kg) of trout trapped in the Te Waiata Stream between 1994 and 2004.

Species / sex	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>RF</b>	2.82	3.18	3.01	2.6	2.61	2.1	2.18	2.62	2.83	2.5	2.48
<b>RM</b>	2.63	3.05	3.18	2.65	2.51	1.9	2.21	2.69	2.84	2.35	2.7
<b>BF</b>	2.34	2.85	2.87	2.33	2.47	1.9	1.87	2.12	2.42	2.15	2.35
<b>BM</b>	2.62	3.08	3.04	2.76	2.76	2.32	2.23	2.52	2.83	2.58	2.7

Species / sex	2003	2004
<b>RF</b>	43.7	45.5
<b>RM</b>	42.1	43.7
<b>BF</b>	44.3	45.4
<b>BM</b>	41.9	43.1

Table 3: Average condition factors for both species of trout trapped in the Te Waiata Stream during 2003 and 2004.

Condition factor is a formula which relates the weight of a fish to its length. The bigger the condition factor, the fatter the fish. A fish with a condition factor of 40 is normally considered to be in good condition.

with the percentage of the population over 8lbs increasing from 6.1% in 2003 to 8.5% during 2004 despite the increase in overall population size.

Once again, data gathered from angler satisfaction surveys completed once the summer season had closed corresponded well with the data from our trapping programme. For example, these experienced anglers commented upon the number of trophy-sized fish present last summer and rated them on average at 8.3 out of 10. This is considerably higher than the average rating of 4.2 during 2003. Similarly, these anglers also commented on the improvement in size and condition of the trout with many claiming that they were better than recent years with many looking quite 'punch'. Further comments were made about the number of maiden fish and again this was reflected by the numerous maidens passing through the trap this winter. With the number and condition of large fish combined with numerous maidens, fishing prospects this coming summer at Lake Otamangakau look solid - weather permitting of course! Let's hope some of these big fish take the final step and kick through into the magic 10lb bracket.

Support  Lake Taupo Hospice

**Make shopping easy with these  
"Great Christmas gift ideas"**

Recipe books



*"The Bach in Winter"*



*"The Picnic Hamper"*

*"The Picnic Hamper"*  
*"The Bach in Winter"*  
Many wonderful recipes!

Only \$11 EACH

Cards  
Postage included



A PACK \$5

Please write to: Lake Taupo Hospice, PO Box 950, Taupo

*Before the flood the pond was always popular with children keen to feed the fish.*

## Children's fishing pond is revamped for next year

*by Errol Cudby*

*Below left: Work underway to remove the final slurry and place gravel on the base of the pond.*

*Below right: Tony Bell begins to remove the mud and rock from the pond when repairs began in August.*

When the Tongariro River flooded at the end of February this year, major damage was done to the Tongariro National Trout Centre, with one of the worst hit areas of the site being the children's fishing pond. The pond is a popular attraction as a place to feed the fish, and each year children are able to catch a trout from the pond on the public fishing days organised from April to October. Unfortunately, due to the flood damage, the pond had to be closed this year. On the positive side though,

this gave us an opportunity to undertake a full refurbishment of the pond.

The Tongariro National Trout Centre Society adopted the project to restore the pond and found a generous sponsor who would pay for repairs to be made. An application to the Lion Foundation for a grant of \$27,000 was successful and covered repair work in order for the pond to be ready for use again in 2005. With the funding assured, Gordon Hydes, a local builder who has built and overseen existing river rock walls at the trout







*Gurdon Hydes places the rocks as the new wall begins to take shape. Photos: Errol Cudby*

centre was contracted to do the repair work. Restoration began on 12 August with Tony Bell of Phillips Boat Services removing about 80 cubic metres of mud and rock over a period of five days, between rainstorms and bad weather. The expected problems arose from the start. Tony Bell finished on 7 September but was

unable to remove the final 150mm deep slurry of mud and water and his work uncovered a considerable inflow of groundwater which required continual pumping to allow any work to be done. Kernohan Contractors Ltd were called in and removed most of the remaining slurry. Seventy cubic metres of graded rock fill was then placed over the bed of the pond to raise it above the groundwater level.

To date, good progress has been made and the rock wall that surrounds the pond is now taking shape. There have been some kind gestures amidst the frustrations of getting this work done. The Society is extremely grateful to Works Infrastructure Ltd, Kernohan Contractors Ltd and Turangi Remains Ltd for their generous support.

We hope to show you the completed pond in the March issue of *Target Kiupo*. We also plan to announce in that issue the dates for the public fishing days in 2005. This will please hundreds of keen little anglers all over the North Island!

**Everybody is talking about it...**



**HUMMINBIRD**

**THE NEW  
HUMMINBIRD M97x  
COLOUR**

**GPS/CHARTPLOTTER/FISHFINDER**

**Now Everyone  
Can Afford One!**



Has built-in Uni-Map charting and also uses



charts for increased seamless detail

**SEE YOUR LOCAL HUMMINBIRD DEALER**

or contact Kaptain Kiwi 2000 Ltd Phone 04 939 2882 Fax 04 939 2890 Email [sales@humminbird.co.nz](mailto:sales@humminbird.co.nz)

100104

# WHY DOES DOC MANAGE THE TAUPO TROUT FISHERY?

by John Gibbs

*John is the Fishery Area Manager and has fished Lake Taupo since the 1950s, with a working involvement with the fishery since 1964.*

*Why does DOC manage the Taupo fishery when Fish and Game do it everywhere else? This is a question we often hear. Sometimes it comes with a suggestion that managing an introduced species doesn't seem like the Department of Conservation's core role.*

Well the answer is quite straightforward. Trout and all other sports fish are public resources. They cannot be privately owned until and unless they have been lawfully caught. And that law? Why, it's the Conservation Act. The Minister of Conservation is responsible for the Conservation Act and the legislation is administered by DOC, including those parts relating to trout. For the most part, the management of trout (and game birds) is delegated under the Act to Fish and Game Councils, which are Crown entities responsible to the Minister of Conservation.

The Taupo trout fishery is also administered under exactly the same provisions of the Conservation Act. It has its own detailed rules, the Taupo Fishery Regulations, but they are also authorised by the Conservation Act. Fish and Game regions have parts of the Freshwater Fishery Regulations and Anglers' Notices fulfilling the same role.

The big difference goes right back to the early days of the Taupo fishery and the ownership of the beds of the waters where Taupo trout live. Prior to 1926 Ngati Tuwharetoa, the local iwi, owned the bed of Lake Taupo, the beds of the inflowing rivers and most of the surrounding land. This gave them effective control of access to the fishery itself, although the water and the trout were a public resource. As the quality and reputation of the fishery grew many ardent anglers, particularly from USA and UK, saw opportunities to claim their own piece of paradise. Various overtures were made to Maori landowners either to buy land around the lake or along the rivers, or to purchase exclusive access agreements. New Zealand anglers and the government of the day saw the risk that this could effectively privatise much of the fish-

ery and thus lose a highly valued recreational and tourism resource.

The government began negotiations with Ngati Tuwharetoa in 1924 and these concluded in 1926 with the passing of the Maori Land Amendment and Maori Land Claims Adjustment Act. This forestalled the private ownership of Taupo waters by declaring their beds Crown land. Public access to and use of the lake for all purposes was provided by a right-of-way around its shores. But in a unique move, the agreement also provided access on foot for licensed anglers over most of the banks of the inflowing rivers while retaining their Maori ownership.

There were some small areas of lakeshore and river bank already in freehold title and these weren't affected by the new Act. But any Maori land freeholded since 1926 retains its 'public or anglers' rights of way.

In return for these rights, the Crown pays Ngati Tuwharetoa annual sums based on fishing

and boating use. But to quantify this, special fishing licences and boating fees (launching ramp, mooring and berthing permits) were required. All the revenue from this special fishing licence is used to manage the trout fishery, but it provides the figure against which the payment to the Tuwharetoa Maori Trust Board is indexed. To ensure that all angling use is accounted for, fishing licences for other parts of the country cannot be used at Taupo.

Since shortly after the turn of the 20th century the Taupo fishery, along with the other major tourist fisheries of the Southern and Rotorua lakes districts, were managed directly by government agencies. The first was the Department of Tourist and Health Resorts and, since 1913, the Department of Internal Affairs (later NZ Wildlife Service). This reflected the views of successive govern-

*The big difference goes right back to the early days of the Taupo fishery and the ownership of the beds of the waters where Taupo trout live.*



...the  
 course of two hours fishing in the morning. In the  
 afternoon he secured six fish, left his fly in two, and had  
 seen several others. Of these there were several fish which  
 are close to 7 lbs. in weight, including a lovely brown trout;  
 two were a little bit lean and were returned, and the bat-  
 tace were good fish of 5 lbs. As he remarked at the end  
 of the day—"I have never had or ever hope to have such a  
 day of wonderful fishing in my life. It is almost unbe-  
 lievable."



Their Excellencies, Lord and Lady Bledisloe kindly  
 pose with some fish taken by His Excellency with the  
 dry fly in Cherry Pool on the Tongariro

**FOR SALE.**

Hardy Houghton Rod, 9ft; two spare tops; in  
 aluminium case; very little used; perfect condition.  
 £8. For address, apply the Editor.

**DONEGAL HAND-WOVEN TWEED and HAND-  
 KNIT STOCKINGS**

Always in Stock.

MANAGER, Lissadell, Sligo, Irish Free State

As the quality and reputation of the Tongariro River grew, so did the  
 number of visitors to the area.

This excerpt from the New Zealand Fishing and Shooting Gazette 1st  
 February 1935 shows the Governor General Lord Bledisloe and Lady  
 Bledisloe after fishing the Tongariro River.

ments of the importance of these fisheries to  
 the country's economy and their recreation-  
 al value to the nation.

In the period after 1926, Ngati Tahuaroa  
 frequently expressed their view that the Act  
 proclaiming Taupo beds as Crown land did  
 not accurately reflect their agreement with  
 the Crown. By the late 1980s the two parties  
 were close to agreement on the Tahuaroa  
 view. In 1992 a deed was signed restoring the  
 title to the beds of Taupo waters to Ngati  
 Tahuaroa while retaining all the existing  
 rights and privileges of public and fishing  
 access.

At this same time the management of  
 sports fish and game birds in New Zealand  
 was undergoing major changes. The old  
 acclimatisation societies were replaced  
 with fish and game councils. Most of the  
 areas formerly directly managed by the  
 government also passed to Fish and Game  
 control.

In the normal course of events the Taupo  
 fishery might well have followed. However,  
 Ngati Tahuaroa made very clear the value  
 they placed on their unique statutory rela-  
 tionship with the Crown. This required that  
 they dealt directly with the government as  
 the Crown's representative on Lake Taupo  
 issues. It would not truly reflect the purpose  
 and intent of the 1926 Act and the 1992  
 Deed if the government delegated its man-  
 agement role to a third party.

So recognition of this view was given in the  
 Conservation Act, with the responsibility for  
 managing the Taupo fishery being placed  
 with the Director General of Conservation.  
 DOC had incorporated the former Wildlife  
 Service, which was managing the fishery; as  
 one of its parent organisations so it ensured  
 continuity was maintained.

Perhaps more importantly, the  
 Conservation Act incorporated the govern-  
 ment's functions for not only the protec-  
 tion and preservation of historical and  
 indigenous natural resources, but also for  
 recreation and enjoyment of public conser-  
 vation lands. Crucially, this Act also provid-  
 ed for the management of valued intro-  
 duced recreational species - sports fish and  
 game birds. The value the community  
 places on these statutorily managed species  
 is reflected in their status in the  
 Conservation Act. And so it was that the  
 political decisions were made and DOC  
 now manages the Taupo trout fishery.

# Making sure you receive your copy of **TARGET TAUPO**

For those of you about to buy your adult season licence so you can take advantage of fishing over the summer at Taupo, don't forget to fill in your complete postal address on the licence so you receive future issues of this magazine. Our database is based on the previous years licence details, i.e. what you fill in on your licence this year will form our database for *Target Taupo* magazine from July 2005 to March 2006.

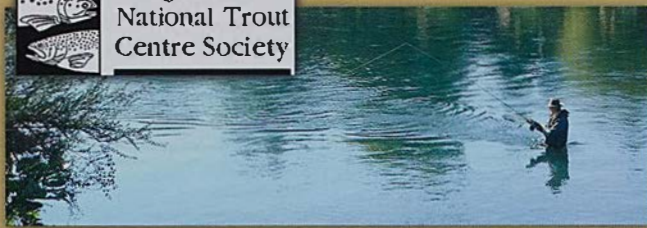
Common mistakes on licences that prevent you receiving *Target Taupo* are:

- Putting down a holiday home address on your licence instead of your residential and postal address
- Forgetting to include the "RD number" and suburbs of major towns on rural delivery addresses
- Illegible writing (don't forget we are trying to interpret a carbon copy)

We not only need all details on your licence completed for legal reasons, but the more information you provide the better chance you have of receiving future issues of *Target Taupo*.



Tongariro  
National Trout  
Centre Society



The Society encourages and promotes public interest in trout fishing, an understanding of the Taupo fishery and trout habitat. 'The River Walk' Visitor Centre has been developed to provide a modern learning experience about trout for visitors of all ages. Throughout the year Society volunteers publicise and conduct children's fishing days at the Centre to teach children to fish for trout and to encourage respect for our environment.

*To join the Society please fill in the form and include the annual subscription of \$25*

Name:

Address:

Post to: Tongariro National Trout Centre Society, P.O. Box 73, Turangi





# LOTS OF HELPFUL INFO FOR ANGLERS

## THE TONGARIRO RIVER

We are gradually building up our information resources for Taupo anglers and if you don't already have the following, be sure to contact us:

- The new map of the Tongariro River specially designed for anglers with pools named and access tracks marked
- A fish measure sticker to assist you to measure your catch
- A brochure with helpful tips on how to release fish carefully
- A trolling brochure with tips on fishing Lake Taupo including rigs and seasonal information

We also have a limited supply of the last four back issues of *Target Taupo*

Take advantage of this free information which is available from the Turangi office of the Department of Conservation, or by contacting us: [fishinfo@doc.govt.nz](mailto:fishinfo@doc.govt.nz) or (07) 386 9259.

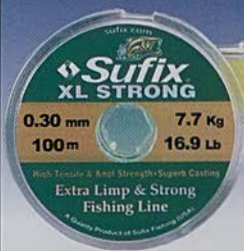
Helpful information for anglers, including a monthly monitoring report, can be found on the internet:

[www.doc.govt.nz/explore/hunting-and-fishing/Taupo-fishery](http://www.doc.govt.nz/explore/hunting-and-fishing/Taupo-fishery)

## FLUORO TIPPETS

### NEW SUFIX FLUOROCARBON Tippet Line

Nearly invisible in water, it's also high abrasion-resistant and fast sinking. Available in 3 - 10 lb



## SUFIX XL STRONG

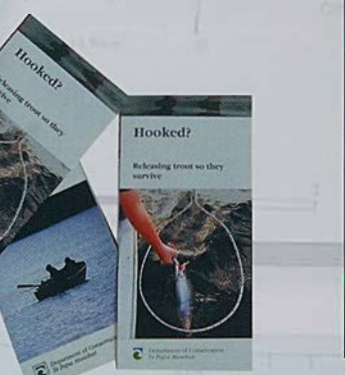
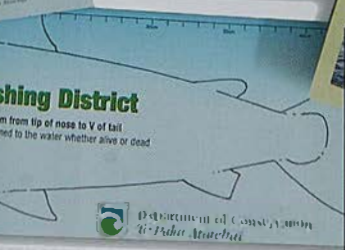
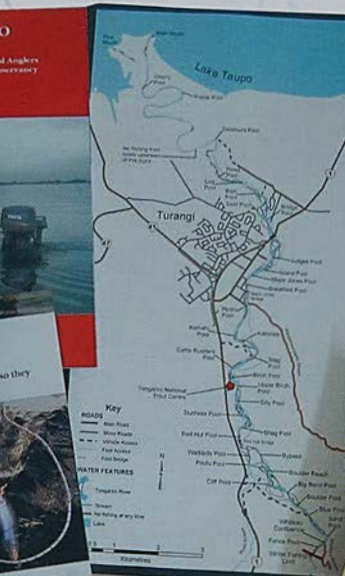
Extra Limp & High Strength Line

An exceptionally soft, smooth and limp line with great tensile and knot strength. Smooth trouble free casting with less line twisting, fewer kinks and less backlashes. Ranging from 4.8 - 43 Lb. in lowvis lemon green colour.



**Sufix**  
FISHING LINE

Distributed by:  
NORTH ISLAND Robert A. Conaghan (N.Z.) Ltd  
Ph 09 638 6100  
SOUTH ISLAND Alexto Sports 2000 Ltd  
Ph 03 477 0064



# team profile Tania Greaves



Tania's new position involves administering the licensing system and liaising with 140 agents across the North Island.

Tania Greaves joined the Taupo Fishery Area in early September as the new Ranger, Service. This position predominantly involves licence administration and servicing the 140 agents throughout the North Island who sell Taupo District fishing licences. This is a challenging and important role as management of the Taupo fishery is fully funded from the revenue derived by the sale of licences. Tania was born and raised in Taupo, attending Taupo-ma-tia College where she was a member of the Sailing Club and spent most summers swimming or fishing on the lake. She then left to attend Massey University, where she gained a Bachelor of Science, majoring in zoology. After working in temporary jobs as a shop assistant, calf rearer and apple picker, Tania is enjoying being able to use the knowledge gained from her study and says her father is happy to be seeing a return on his investment.

Tania recalls attending a children's fishing day at the Tongariro National Trout Centre in 1983, where the highlight was catching a fish that was bigger than her brother's! "That was the first time in my life I had caught a

trout fly-fishing", says Tania. Just recently though, Tania landed a nice rainbow at the Birch Pool on the Tongariro. This could be the start of a fishing addiction!

Tania and her family have also spent many weekends tramping in the Tongariro National Park and surrounding areas. "It's a wonderful place to live - there is so much to do and see." Tania is a keen angler, both in fresh and salt water. One of her fishing highlights was catching a 13 pound snapper off the coast of Whiria while on a week long fishing trip with her brother Royce, who lives in the Bay of Plenty.

Tania joined the Department in March at the Palmerston North Area Office as a temporary Ranger, after returning from working four years in Queensland, Australia. This gave her an excellent grounding in how the Department functions. "The Palmerston North Area Office was great," she says. "The staff there were a really good team and worked well together. It was an excellent starting point for me."

During her spare time Tania is a keen horse enthusiast, and practises Natural Horsemanship. She is currently looking for a horse to start on.

## Tear Proof - Water Proof

Available from all leading bookstores & tackle shops

Spot



### JIGGING SPOTS

Spot	GPS
J1 Horomatangi Reef	38-48.53 175-59.99
J2 White Cliffs	38-49.94 175-01.33
J3 Mine Bay	38-43.11 175.58
J4 Waihora Bay	38-41.11 175-42.11
J5 Otupoto Falls	38-42.11 175-42.11

**Target Species:** Rainbow Trout & Brown Trout  
**Best Conditions:** Jugging  
**Technique:** Jugging  
**Months:** All year round  
**Line:** 10kg braided  
**Flyline:** 18g - 25g Jig, Gold Body Ginger Mick, V

**Fishing Tips:** Always try to drift into the shallow water to find structure and if no success after 10 minutes move onto the next spot. Do not aggressively jig your rod, unless you fishing the movement of the boat is probably enough.

### TROLLING SPOTS

**Horomatangi Reef** GPS: 38-48.5175  
175-59.7046

**Target Species:** Rainbow Trout  
**Best Conditions:** Trolling / Downrigger  
**Months:** Nov to Dec  
**Flyline:** Yellow body, Green orbit  
**Time:** Early morning

**Fishing Tips:** Trolling in an east-west zigzag pattern at the change of light. Long ball down the western side at 30 metres along the shore drift. Cast out down the eastern side dragging your lure over the shallow clean and silt.

### FLY FISHING SPOTS

**Waihaha** GPS: 38-43.2355  
176-44.9036

**Target Species:** Rainbow Trout  
**Best Conditions:** Flyfishing  
**Months:** Dec to Feb  
**Fly:** Fat swift winged tail smelt  
**Line:** Floating line, 3m clear intermediate leader, 8lb Sippet

**Fishing Tips:** Walk on the bank from the end of Waihaha Ait and fish the stream mouth. Alternatively you can walk to the point and fish over the hole with a Red Ketter and a High CD sinking line, after dark use a Lure Marlow.

View the range of Spot X Charts, Maps and Booklets on our website

[www.spot-x.co.nz](http://www.spot-x.co.nz)



# 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



• 2 mins walk to the Major Jones Pool  
• 4 double bedrooms, with ensuite bathrooms  
• Guest lounge, TV lounge/library and sunny dining area  
• Breakfast - always special

**Peter & Chris Stewart Ph: +64 7-386 8539**  
253 Taupahi Road, Turangi, New Zealand  
Fax: +64 7-386 8534 Email: [founders@hug.co.nz](mailto:founders@hug.co.nz) web: [www.founders.co.nz](http://www.founders.co.nz)

**alpine SMOKEHAUS**  
GOURMET FOODS THE OLD FASHIONED WAY

- Venison - Salami's, Meatloaf, Sausages, Pastrami, Smoked Venison
- Smoked Salmon - hot or cold smoked
- Smoked Chickens
- Gourmet Products - Jar's of sauces, Mustards, jams etc.
- Home Kill processing available
- MAF approved premises
- **Don't Forget Trout Smoking Available!**

**Alpine Smokehaus**  
(Formerly Turangi Smokehouse) Shop 37, Town Centre, TURANGI. Phone 07-386 0235 Fax 07-386 0335 After Hours 07-386 8454

**"Gourmet foods the old fashioned way"**

**Parklands MOTOR LODGE TURANGI**

**MOTEL COMPLEX, CONFERENCE CENTRE, MOTORHOME PARK**  
31 Campable Accommodation Units set in 7.5 acres of Parkland • Game keep, lift and equipment available • 200 pmt Motorhome Park and amenities block • licensed restaurant and bar • Wheelchair access • swimming pool • Tennis court • Private Spa Pools • Saunas • 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, whitewater rafting & deer hunting @dis: arranged.

CNH STATE HIGHWAY ONE AND ARAROHU STR • P.O. BOX 142 • TURANGI • NEW ZEALAND PHONE: 07 386 7515 FAX: 07 386 7509  
0800 Globug (0800 456 264) Website: <http://pklands.co.nz>

*Braxmere Fishing Lodge*

**Tokaanu, Turangi**

- 5 mins from a Regatta Mile
- 30 mins from Whakapapa Snowfields
- 2 separate houses each with open deck at peak & barbeque
- Licensed Resto (11 & 12) on site, conference centre
- 11 self-contained units all for a lake view
- Thermal pools • Barbeque • Drying racks/laundry
- Mobile homes available • Private • 60 mins to
- 16 in boats and fishing gear • Fishing guides available
- Wheelchair and laundry equip • Competitive rates • group rates

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

**FOR RENT**

**Tongariro Riverside Brown Trout House**

Possibly the closest self-contained accommodation to the most productive trout fishery in New Zealand. Short or longer term rental for fisherman, tourists, skiers, trampers on the Tongariro crossing, stressed city folk wanting some time out in a quiet and interesting location.

**Ph: 06 385 8026**  
or visit [www.browntrouthouse.co.nz](http://www.browntrouthouse.co.nz)

**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:

**FLY FISHING SPECIALIST**

**Greg Catley**

- ★ River and stream fly fishing
- ★ Wilderness adventures
- ★ Hell-fishing or raft fishing
- ★ Gift vouchers & package bookings
- ★ All equipment supplied

**Mobile: 021 638 242**  
**Tel: 07 377 0035 Fax: 07 377 0135**  
Website: [www.zflyfish.co.nz](http://www.zflyfish.co.nz)  
Email: [uzflyfish@nzflyfish.co.nz](mailto:uzflyfish@nzflyfish.co.nz)  
PO Box 1585, Taupo, NZ

Bookings Recommended

**BELLBIRD LODGE**

**Turangi**

**Budget priced accommodation, big on comfort and service.**

- From \$18 per night.
- Share, twin, double rooms and holiday homes available.
- Freezer and fish smoker, & Guides arranged.

Call Andrew for booking  
Ph **07 386 8281** Fax **07 386 8283**  
email: [bellbird@taupo.org.nz](mailto:bellbird@taupo.org.nz)

**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 Ruff 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)

**Greenstone Fishing**

Specialising in:

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

**George Et Carol Blake**  
147 Tongariro Street, Taupo

Ph/Fax: 07 378 3714  
After Hours: 07 378 8188  
Mobile: 025 603 4277

**Sportsman's Lodge**

- Right on the banks of the world famous Tongariro River.
- Inexpensive riverside accommodation. Twin/Doubles from \$55 per night.
- Large shared Kitchen/Dining Room with all facilities.
- TV Lounge with open fire and sun decks.
- Fishing guides available.

**15 Taupahi Road, Turangi New Zealand. Ph: (07) 3868 150 Fax: (07) 386 8150**  
Email: [sportsmanslodge@xtra.co.nz](mailto:sportsmanslodge@xtra.co.nz)

**Tauranga-Taupo Fishing Lodge**

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

- Moats - Cabins - Camping Ground
- Fish cleaning room & freezer
- Fishing guide available

Ph: (07) 386 8385 • Fax: (07) 386 8386  
Hosts: Keven, Irene.

**• TARATA FISHAWAY •**  
**• ACCOMMODATION • GUIDED OR UNGUIDED FISHING •**

Situated in the remote Mokai Valley where the picturesque Rangipo River meets the rugged Ruahine Ranges. Unique trout fishing right at our door step.

**Location, location, location** New! River Retreat Spa Bath, Homestead, Fisherman's Cottage, Trout Fishing, Rafting, Tramping, Spotlight Safaris, Camp Outs, "Mini" Golf, Clay Bird Shooting.



Your Hosts: Trudi & Stephen Mallock,  
 Ph: 06 388 0354  
 Fax: 083880954  
 Email: [trudie@trata.co.nz](mailto:trudie@trata.co.nz)  
 Web: [www.trata.co.nz](http://www.trata.co.nz)



**Club HABITAT**

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*  
 LUNCHEON RESTAURANT  
 at the Kaimanawa Lodge, Turangi

*Delicious food  
 for hungry fishermen*

HOSTS: Jim & Rae Magan

258 Taupehi Road  
 Phone 07 386 8709 Fax 07 386 8768  
 Mobile 025 955 230  
 Email [j.magan@atrix.co.nz](mailto:j.magan@atrix.co.nz)

**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: Kitchens, Dining, TV, Showers, Toilets, Laundry, Fish cleaning facilities, BBQ, Spa pool

- 10 mins to Turangi
- 30 mins to Taupo
- 35 mins to ski-fields
- Permanent sites available

13 Paratutu Range Rd, Motuoaapa, PO Box 41, Tairāpiti  
 Phone: 07 366 7106 Fax both numbers: 07 396 7162

**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
- Childrens Play Area • Telephone
- Fish cleaning area & fish freeze
- Caravans & boat storage

Onaonga Rd, PO Box 41, Turangi  
 Phone: 07 386 8754

**Fishing/Holiday Bach**

*Can't afford a holiday home?  
 -What about a permanent site for your caravan for fishing or holidays.*

**Quiet peaceful sites**

- 2 minutes from Waitahanui River.
- 2 mins from lake front.
- 10 mins from Taupo.
- Fish cleaning room & smoker.
- Rod & wader hire.
- Shop.

**Windsor Lodge Motel & Caravan Park**  
 S.H.1 Waitahanui, Taupo  
 Phone: (07) 378 6271  
 Fax: (07) 378 6246  
 email: [windsor.lodge@xtra.co.nz](mailto:windsor.lodge@xtra.co.nz)

We also have available: 8 Fully Self Contained Units, Basic Cabins and Temporary Caravan and Tent Sites.

**HORTY'S**  
 SMOKEHOUSE & FISHERMANS ACCOMMODATION



SKY TV! **\$25 A NIGHT SLEEPS 6!**

**\$10 TROUT SMOOKING** (Vacuum packed!)

273 Taupehi Rd  
 Turangi, New Zealand  
 Ph: 07 386 5441



**ABSOLUTELY ANGLING**

**Tongariro River Raft Fishing**

Upper Tongariro River December - May  
 Lower Tongariro River - ALL Year  
 \$495.00 for two anglers per day

Join Ian Ruthven for the BEST fly fishing adventure of your life.

PH 0800 35 34 35  
[ian@wilderness.co.nz](mailto:ian@wilderness.co.nz)  
[www.nz.fly.fish.com](http://www.nz.fly.fish.com)

**Raft Fishing Specialists**

F&G 761



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](mailto:peter.mcintosh@fishgamenz.co.nz)



# GREAT CORNERING IN THE WET.

## THE NEW SS720

Designed for people who need more than one lifestyle in one boat. Luxury when you want it and hard core fishing when you need it. Rugged, reliable and with the best ride on the water the Haines Hunter SS 720 has a lot more to offer people who need more than an average boat. The Sports Sedan provides shelter from the elements while providing fantastic all round visibility through the toughened glass screens that also bring a whole new look

to the Haines Hunter range. 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 to a less strenuous day on the water. Test drive the Haines Hunter SS 720 and experience a new direction in boating.



**HAINES HUNTER**



THE SECRET IS IN THE RIDE



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

# THE REVOLUTION CONTINUES



## PERFECT BALANCE

Once again Yamaha leads the way...for many the new Yamaha 150 four stroke offers the most perfectly balanced boating experience available. Innovative and technologically superior, the Yamaha 150, a purpose built four stroke outboard offers clean running, superb performance, economy, and amazingly low noise levels...with no weight penalty over 2 stroke outboards. Join the four stroke revolution, choose from NZ's most comprehensive four stroke model range at your Yamaha dealer...today.



LOW EMISSION  
4 STROKE



# YAMAHA

EarthYAMA4B