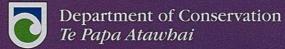
TARGET TAUPO

A newsletter for Taupo Anglers

AUGUST 2006, ISSUE 52







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AUGUST 2006, ISSUE 52

Published by
Taupo Fishery Area
Department of Conservation
Tongariro/Taupo Conservancy
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Front cover: A rainbow (10p) and brown trout, bappily feeding in the Tokaanu stream. Taken by Dave Contey of Turangi

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General enquiries and address changes email: 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

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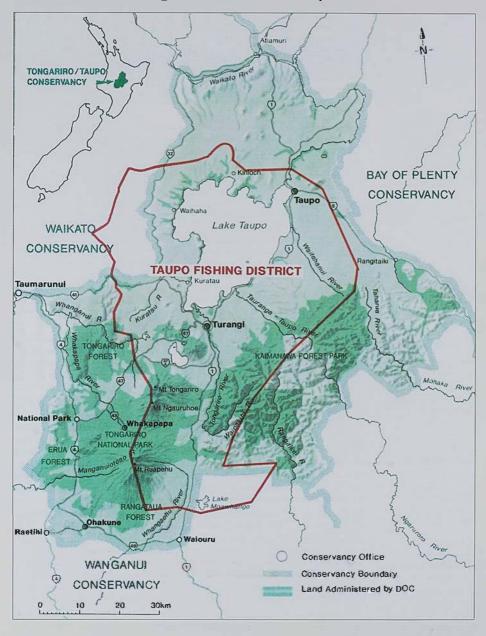
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The views expressed in Target Tanpo are those of the contributors and do not necessarily reflect Department of Conservation policy

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Tongariro/Taupo Conservancy



FISHERYFORWARD

GREETINGS FROM THE TAUPO FISHERY TEAM

There is a lot of news in this is sue of *Turget Teache*, ranging from progress with research and monitoring projects and the education programme, to developments at the Tongariro National Trout Centre, fishing prospects, advances with anglers' access and news about staff and associares.

We are also moving into the winter season, which adds a unique dimension to the worldclass Taupo trout fishery. Tens of thousands of brown and especially radinbow front are beginning to mature and move out of the lake into the rivers to start their breeding cycle. Over the next 5 months the rivers and small streams will be packed with

migrating and spawning fish as they complete the final stages of their contribution to this wild from lishery. These spawning tuns provide one of the most exciting and memorable fishing opportunities for Tampo anglers in the likes of the Tongafiro. Tauranga Taupo Waitahanui and other rivers. Ensuring enough trout escape the gammlet to breed and maintain the future fishery is essential.

This requires careful control through a mix of fishing method restrictions, catch limits, closed waters and law enforcement all informed by robust monitoring of fishing pressure, trout numbers

and habitat quality

But perhaps the most important issue facing the Taupo fishery in the short to medium-term is described in Glenn Maclean's article about didymo. If this nastyfreshwater algaestablishes in the Taupo catchment it will dramatically impact on your river fishing. But don't think of this as just a river problem. Not only will conventional fly fishing methods be limited by dense mats of algae, but the growth of young trout may also suffer leading to fewer fish for lake anglers also.

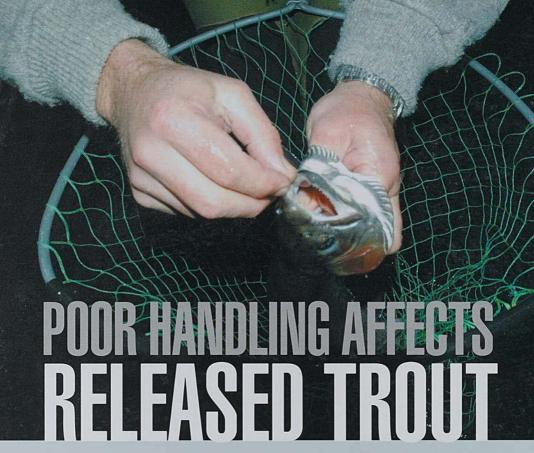
Didymo is not just an angling issue either. In may have direct impacts on water supply intakes and certainly on the visual attrictiveness of rivers. The classic image of the ice-blue waters of the Waikato River plunging over Huka Falls will be no more if the river is fouled with didymo. How will tourists perceive our clean green country if that icon looks like a huge scwage channel? All of these impacts will have direct and

significant consequences for our economy Tourism is the single largest countilutor to the economy of the Taupo district. Angling alone generates some \$80M a year. Imagine the effects if the fishery was diminished by as little as a quarter due to the impact of didyno.

There is some hope. Effectiveborder comrols at Cook Strait and hygiene measures by all river users could ensure didyno stays in the South Island. At least, delaying its arrival will buy time which may lead to the development of control methods. It is not unknown for some invasive plants to inexplicably lose vigour after a period of aggressive colonisation. Remember the waternet algae that used to be the scourge of the Rotorua lakes and has now disappeared? Whateverthe outcome it can only be possible if the community at large understands the consequences and accepts responsibility for the solutions. It is in every angles interest to take ownership of the problem and make proper gear cleaning a routine part of every lishing trip.

Long-time readers will remember Shirley Oates who spent 10 years with the Taqoo Fishery team until she retired. For much of that time she was responsible for the production of this mag azine. Sadly Shirley passed away in April and she is missed go:atly by her friends and former colleagues.

By John Gibbs Taupo Fishery Area Manger Photo: Tony Roxburgh



By Michel Dedual & John Shorland Michel is our Fishery Area Scientist and an enthusiastic angler John is also a keen angler and a photographer who specialises in forensic and conservation yelated

Above: How not to wandle a fish during unbooking Photo: John Shorland

photography:

then we catch a fish and then release it either because we have to or because we want to, we may be filled with satisfaction and pride, especially when other anglers are watching. For most anglers as long as the fish swims away and out of sight, out of mind, then it's all good But is it?

The survival rate of released trout depends on several variables It can vary from season to season, with warer temperature, and/or oxygen concentration, the physical condition of the fish and it can even vary from one place to another-However, there is nothing much we can do to change these variables. The location and severity of the hooking injury, and the degree of physiological stress that a trout is subjected to are other factors that also affectsurvival rate. As anglers we do have some control over these, We can reduce the time the fish spends on the hook by

using stronger gear that will allow a quick landing. We can also use circle or larger hooks that will not get caught in the deeper parts of the mouth near fragile organs.

However there is one overriding variable that has a critical role in whether the fish will survive or not. That is how the fish is handled and this is something we have almost complete control over There is no point of using adequate fishing gear to reduce stress and exhaustion if the fish is roughly handled during the unbooking and release.

There are right and wrong handling techniques to return fish to the water. When handling a fish, its welfare must be our only concern. If the proper procedures are followed a large percentage of returned lish will survive to spawn or grow bigger. Fish which have lost a for of mucous or scales have been brooked in the eye or gills, or are bleeding heavily will probably not survive in

this case the fish should be quickly killed preferably by ikijime as explained in issue 31 of Tangel Taupo, rather than returned If the fish is not in a prime condition it will still make a tasty soup. Don't smoke it! Only the best lish should be smoked.

A key point to remember when handling fish is that just like us they need to breathe Fish respiration is exactly the same as ours, oxygen in and carbon dioxide out However, tish have a different way of doing it and the ability to breathe underwater is one of the most interesting adaptations of fish Most fish are unable to utilize oxygen from the air and need to obtain it from within the water, Water cannot hold as much oxygen as air Under normal conditions a litre of airholds about 30 times more oxygen than a litre of water at 10°C, so fish must be good at extracting what oxygen there is from the water.

The way that fish accomplish this is through their gills Water is constantly pumped over the gills through a combination of opening and closing the mouth and the opercula (gill fap) that forces water-over the gills Water is much denser and viscous than air and it is much harder for a fish to force water over its gills than it is for us to force air in and out of our lungs If we examine gill tissue under the microscope, we see feather-like structures called lamellae. These lamellae provide a large surface area across which to exchange oxygen and carbon dioxide. On closer inspection we see that the gill tissue is very thin; only one or two cells thick. Here the

oxygen dissolved in water can pass through and enter directly into the fish's bloodstram. Most fish cannot breathe out of the water because gills are designed to be supported by water and when out of water they collapse. This will make it impossible for oxygen to be absorbed Gill tissue is the most permeable of the tissues and because of this the gills are very susceptible to damage by squeezing or by the impact of thrashing on hard surfaces. We will illustrate later the damage to the gills that can occur from poor handling

Furthermore, the oxygen content of water varies with temperature Wann water holds less oxygen than cold water. As a result it is harder for trout to breathe in warm water and the fish willbe even more stressed when it is pulled ont of warmer water. So it becomes even more important to handle fish confidently and quickly during summer.

Gills perform another function necessary for the health of fish. This function is excretion, the process of eliminating wastes which are mostly in the form of nitrogen compounds. These are produced in the liver during the breakdown of proteins that the fish has consumed. The most important of these waste products is animonia, a toxic substance to fish even at very low concentrations in other animals, it is the kidneys that excrete nitrogenous wastes in the form of uring.

When we catch a fish we may have pushed it to complete exhaustion while it was desperately attempting to escape That extensive exercise has resulted in an oxygen deficit and a buildarp





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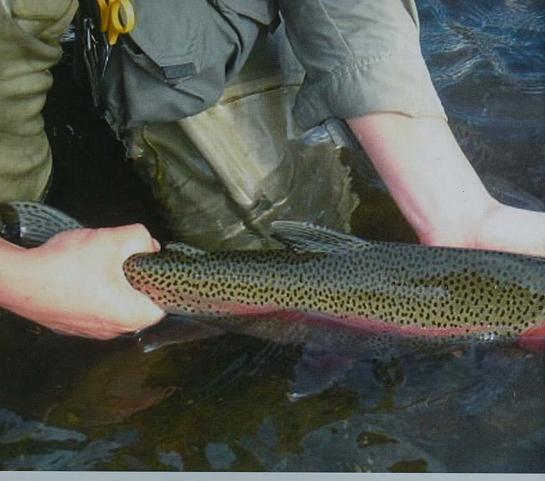
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A good example of how to release a fish Photo: Jared Goedhart, Sporting life

of lactic acid in its circulatory and muscular systems. The cells in its body that have been doing all the work need more oxygen than ever and quickly. The only way the fish can get that oxygen is from the water It should be obvious that the best way to maximize the survival of caught and released trout is to keep them in the water during handling associated with release! Try to put yourself in a situation where you have been fighting to complete exhaustion to free yourself from a threatening situation, only to have your bead put under water as you are gasping for breath at the end of the fight. Holding a trout up with the rod gripped between your teeth may make a nice photo but it's tough on the fish.

By keeping the f.sh in the water while you release it, you will not only minimize the recovery time required for that fish to return its body chemistry to equilibrium levels but also avoid injuring the gills. You will also impress other anglers witnessing your actions. And if you want to show a good photo of a trout take it with the f.sh still in water! This will be in harmony with the practice of someone concerned with and putting the fish's welfare first. This aspect of fish welfare has already been raised elsewhere by anti fishting activists and several itshing magazines in the United States have responded by not publishing pictutes of live fish out of water anymore.

At certain periods of the year fish may be found washed up on the beaches around the lake or along the banks of the rivers. In some cases a simple visual observation will be sufficient to reveal the causes of death. For example male trout that have spent exten-



sive periods without eating during spawning often lose condition beyond repair However, if the fish has died from suffocation because it was held out of the water for too long, it will be difficult to ascertain the causes of death by simple visual inspection. More detailed postmortem analysis would have to be done. In other cases, it is possible to determine exactly where the fish has been firmly held and how the angler's hands were oriented by viewing the bruising of tissue resulting from hae natoma from ruptured blood yessels.

Sametimes it is not possible to unbook a fish without holding it and there are three areas where anglers commonly attempt to grasp a fish to unbook it. We can hold the fish by the tail pe duncle where the body is at the thinnest but also the most solid, by the gills (with all the damage that does), and fortunately less commonly, by the eye sockets, ouch! Other fish species can be held by the lips, but not trout as they have very sharp teeth. Contact with these generally results in painful cuts that take a long time to be at

If you must handle the fish, hold it gently by the tail ped uncle and turn it on its side or ideally upside down where it will usually become immobile. Then you can remove the hook by using pointed pliers or force ps If the fish is not completely revived hold it head-upstream in gently flowing water be bre releasing it. Large fish will require some time to revive because they only give up the fight after being completely exhausted. Watch the fish pumping water through its gills. If the gill action is weak, or non-existent you may have to glide it gently back and forth to force water through its gills As the fish revives, its gills will work more energetically until it is able to remain upright on its own and then finally swims away. A friend showed me another good way to release a fish by placing it upright between rocks in gently flowing water and leaving it alone other than checking its recovery progress from time to time. You will be surprised to see how quickly fish will receiver probably as they don't have to endure the extra stress caused by our presence and more impol: tantly by the completely strange feeling of being in contact with our hands that are much warmer than their body Try to imagine a situation where you are held by something that is much colder than your body temperature of 37°C. Don't tryto revive the rish in fast current, if it slips away, it will begin spinning and turn upside down and you won't be able to save it. Small fish of en don't need to be revived at all because they are on the Line for only a short time and the refore are usually less plwsically stressed by the event.

Many times we see tish handled roughly by anglers who take the view that because there is no obvious injury from this then the fish will be fine. To highlight the mechanical injuries that result from poor handling we ventured outside the visible world and applied ground breaking forensic science to trout.

Fore nsic departments are common parts of many fish and game agencies in North America. For example identification of fish and wildlife remains is important evidence of an offence Often perpetrators try to conceal they have harvested protected species by saying that a particular piece of meat came from a non-protected species. Fixwever well established biological identification techniques can be used to identify the meat in question. Forensic techniques can link offenders to a certain location, legally harvested fish and wildlife, and to firearms, knives, fishing tackle, boats, and other items used during an illegal activity Techniques used to identify biological remains, fingerprints, bullets, gunshor residues, tool marks, tyre tracks, footpatts and other pieces of evidence have been in use by forensic experts for many years. However forms ic science out be applied to many areas of conservation, not just law enforcement. For example it can be used to explain predation of nests of endangered species by looking for protein (egg stage) and haemoglobin (hatched stage) left behind in the next fibra: Some animals like bees can see ultra viole t (UV) wavelengths and UV photography can help us see what other animal species see and to better understand their behaviour

Remember the days at school of passing a beam of light through a prism and seeing the visible colours of red, orange, yellow, green, blue, indigo and violet projected onto a piece of paper? When we examine a lish with the nake deye we also see lots of interesting colours, possible physical damage to fins eterand other natural long



By leaving the fish to the water during relate you minimize the recovery time required for the fish to veture its body chemistry to equilibrium levels and awaid potential injury to the gills.

Phoce. Work Vonnen

term wear and tear. However, this is the limit of what the human eye/brain is able to perceive.

By using special photographic techniques we can investigate the electromagnetic spectrum outside the visible range by producing images that the human eye can't otherwise see. With the development of a special sensor (ChargedGoupled Device or CCD) and filters on some digital cameras in is possible to record the light below the violet end of the visible spectrum (ultraviolet or UV) and above the red end (nitrared or IR). When light is reflected or absorbed from an object the digital CCD records colours not only within

the visible region but also in the UV and IR region Ultraviolet photography has an establishedrole in clinical forensic medicine and is beginning to be used in domestic violence and child abuse assessments. Bruises on a face will be still visible to UV and IR cameras many weeks after the abuse occurred.

We used this photographic technique to explore if holding a fish by the tail during unhooking and subsequent release results in any detectable bruises on the body of the trout. In this experiment we caught a trout by flyfishing in the Tongariro River. The fish was unhooked still in water by restraining it by the tail peduncle. Then, it was quickly

Infra red photography of a trout held by the tall peduncle during release. The black spots below the fingers indicate the previous position of the fingers and suggest brushing. Photo John Shortand



transferred to a solution of anaesthetic until unconscious and UV and IR photos taken. No sign of bruises could be detected in the UV spectium but shadows in the IR light indicated bruising

Another forensic tool is the use of chemicals that produce visible light when they react with an invisible substance. An example is Luminot which produces a faint blue glow on contact with the haemoglobin in blowd. At a crime scene it is common for the criminal to try to destroy the evidence by desperately washing down the scene and cleaning away blo od if present. However, this is generally in vain since Luminot works better with old and diluted (washed) blood.

The use of Luminol to show if a trout is bleeding has to our knowledge never been tried before and our first attempts to highlight blood traces produced poor results We discovered that something on the bleeding fish was inhibiting Luminol, but when we removed blood from the trout with a svringe Luminol worked fine! After some soul searching and testing another piece of the puzzle was found: the mucous on the skin of the fish creates a barrier between the blood and Luminol, so that the blood cannot be highlighted. We conclude that Luminol would not work if applied directly on the skin of the fish and that mucous would have to be removed to test If rough handling causes bleeding Mucous serves as a sun screen to protect fish from damaging UV ray's It can absorb, lock, and shed toxic metals like lead. It also provides a protection against infection by quickly sealing any

open wound appearing on the skin. Mucous is very effective at trapping and immobilizing bacteria and viruses and even contains antibacterial-like agents that will help kill the trapped bacteria Another important trait of mucus is to reduce friction and allow the fish to move through the water more easily. Mucous can easily be removed when in contact with abrasive material like a net or sand. The skin will produce more mucous when needed but that will add stress to the fish. Therefore, it's a good idea to avoid using a net or landing a fish on the sand if it is to be released. Mu cous occurs naturally on the skin of fish so by removing it to do our experiment we would use an experimental protocol that doesn't occur in nature and therefore that wouldn't prove anything.

If water is fee of pollution the gills won't produce mucous but if water quality diminishes through contamination with heavy metals or animonia then the gills will produce nucous to prevent intoxication. However, when gils produce mucous their respiratory efficiency will decrease fortunately the water in Taupo is still largely free of contaminants and the gills of Empo tout are free of micous. Therefore for our experiment we concluded that the most o byious part of the body to highlight blood loss caused by rough handling would be the gills; In a second experiment we booked a fish in the Tongariro, played it normally, and unhooked it out of the water by holding it under the gill plate. The fish was then quickly killed in a solution of anaesth etic The operculum was then removed and Luminol was sprayed on the fish, especially on the gill's



Bleeding of the gills following rough benefiting during subbooking The location of bleeding is highlighted in fluorescent blue by Luminol.

Photo: John Shortand

Bleeding along the edges

of the pectoral fins and

erround the mouth, Photo: John Shorland The results were clear. Restraining a fish during unhooking by holding it under the opercula results in bleeding The photo also reveals some bleeding around the mouth in the vicinity of the hook location. More interestingly, there is also some bleeding occurring along the edge of the pectoral fin It is not possible to ascertain what the cause of this bleeding was but it may be the result of the fish rubbing against the mesh of the net when we landed it. Alternatively, the bleeding may have been caused during spawning by the rubbing of the fig on the grazel when the fish probes the substrate to select a suitable ground spawning

Remember that as anglers we would not have seen any sign of bleeding at all and as a result would probably conclude that we did nothing wrong However, as previous studies have clearly shown a fish bleeding from the gills is unlikely to survive. The lesson keep your fingers away from the gills!

CONCLUSION

As an glers many of us could do significantly better when it comes to our fish handling techniques If we really care about these fish, then let's do it right. When releasing a fish try not lift the fish out of the water, even for a photograph, and take special care nor to handle it anywhere around the gills.

The authors wish to thank Stephen Cordiner at Universimental Scientific Research (ESR) for his support thoughout the experiment.

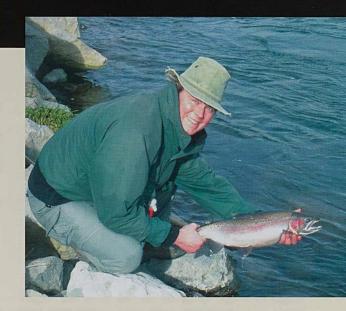


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SPAWNING RUNS SHIFT TO SPRING

By Glenn Mactean Glenn is our Programme Manager Technical Support, and manages the research and munitaring work done in the area.

Judges Pool on the Tongaviro River, June 2006, Photo: Jared Goedbart, Spotting Life espite favourable conditions brought about by an unsettled autumn and early winter trout spawning runs have again been slow to get underway, consistent with the pattern of recent years. This further confirms that the timing of the spawning runs has shifted to late in the year, independent of the weather conditions which may occur through early winter.

We had wondered whether the late runs were simply a symptom of the weather conditions which have prevailed over recent winters. Certainly the factor which first push either runs later was a series of very dry and settled winters, the fish holding off

running until they absolutely had to spawn. Typically Taupo rainbows would run somewhen around June or July but not actually spaven until September in act in the early days of the tishery they ran considerably earlier than this as evidenced by the stories recorded in the early angling texts about the quality of the fishing at Easter and the like. flowever in recent winters when low, stable flows have prevailed through to August then the bulk of the trout have run after this, For example hist year 64% or two thirds of the run through the Waipa trap occurred after 1 September An obvious consequence of this pattern has been to delay spayning by several months with the result that the



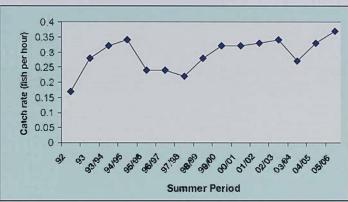


Figure 1. Summer eatch rates for guided & non-guided anglers on take Taupo since 1992

progeny are several mombs younger at any particular time of the year than a decade ago. This has several implications Firstly the lish are slightly smaller when they are in the lake over summer meaning a greater proportion is under the legal size limit. Similarly, as is apparent this year, they are several months later in reaching maturity and thinking about making their spawning migrationTaup• rainbows have always tended to be spring spawners but whereas they would run in autumn the majority are now very definitely spring arunners.

This is not to say that there has not been some good fishing on the Tongariro but it has been patchy and generally anglers have found it hard going as reflected by a recorded catch rate of 0.19 fish per hour (1 fish every 5 hours) over May and June. The Tauranga-Taupo River has fished better with a catch rate estimate of 0.35 fish per hour (1 fish every 2.9 hours) over June, while the Hinemaioia and Waitahanui rivers have been the pick of the bunch, Interestingly the runs in these two rivers are influenced much more

by strong onshore winds than rainfall and so have been less affected by the recent dry winters. It is probably no coincidence that these runs have actained a more typical seasonal timing. The angling success on the rivers is consistent with our counts of spawning fish in a number of the gastem tributaries over June which have been around or just under the 5 year June average.

The other possible explanation for the slow start to the winter fishing is that there is only a small population of spawning fish. However this is not consistent with our November acoustic estimate of the number of trout in the take, or our catch data. The average catch rate recorded over 2300 interviews on the lake last summer was 0.37 fish per hour which is the highest recorded in 15 years (figure 1).

Despite this high average catch catc and the fact that some anglers clearly did very well, other anglers reported the fishing was hard. A fairly typical scenario, but a clue as to one of the key reasons why, can be found in the

Table I Avenage estimated çatch rates by method for Lake Taupo anglers between November 2005 & March 2006

Method	Catch rate (tish/honr)	Number of interviews
Downigger	0.63	282
Leadline	0,18	746
Wiceline	0.29	47
Jigging	0.47	555
Shallow trolling	0.38	579

eatch rate estimates for the different boat lishing methods as shown in table 1.

The downrigger data is dominated by guides who use this method almost exclusively which in itself says a lot. Similarly jigging which is another deep fishing method also proved very successful Wire lining was slightly less productive but the number of interviews is low. Conversely there are a large number of interviews for anglers using lead lines who overall experienced a very low eatch rate This reflects that a third of all anglers interviewed were using this method despite the fact that after Christmas most trout in the lake tend to be at depths where they are out of reach of lead lines.

Interestingly by mid June anglers were once again reporting good success using this method. Typically this would not occur for another month but probably reflects the unusually cold June combined with very strong winds which are likely to have been sufficient to once again mix the lake after the summer stratification (the develoption of a warm suffice layer sitting on to p of the denser, cooler bottom warers). When the lake is fully mixed water temper-

acure has less influence on the distribution of trout and many will once again be in reach of lead lines.

So there appears to be a large number of adult tronr in the lake which should make their spawning migration later this year. The order feature of these fish is that they are in great condition. All in all it is shaping up to be a great spring but again, as in recent years, concentrate your effort from now on rather than the traditional periodiof April to early August.

In one way this clamge to a spring run is not a bad thing. For many New Zealanders autumn was a very busy time Now we can concentrate on the roar, then duck shooting and then look forward to some great river fishing over the spring months.



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ANGLING TRACKS CLEARED FOR WINTER

By Errol Cudby Errol is Programme Manager Visitor Assets, responsible for angler facilities atumn we contracted Tauranga firm Adstar BOP Ltd to clear angling access tracks along the Waitahanui, Hinemaiaia, Tauranga-Taupo, Waimarino, Waiotaka and Tongariro rivers Their crew of Murray Watkin, Russell Brown and Matthew Smith began work on 24 March, By 21 April, 29,827 metres of track and five wasp nests later, the contract was complete.

The modu. operandi of the contractes was something to see. Lightweight semb bars made quick work of the track sides and then Murray mowed down the verges with his "pram", a much modified Bachtold self propelled mower With chains on its large diameter wheels there were few places "the pram" could not reach. It traversed steps, mu dholes, boulders and slippe ry logs and has even been floated across rivers on inner tubes. The only handicap is the fitness of its oberator but Murray was well up to the task, having competed with the machine for years Murray and Russell have cleared the Taupo tracks before and say that they always enjoy the experience. This was Mant's first trip and he vowed to return if possible. They appreciated the favourable comments on their work from passing anglers one even gave them a trout for tea.

Being behind the leader when a wasp nest was distribed was the least enjoyable part of the job, as it was usually those following who copped the punishment. For Mart it was most uncomfortable for a time when he was stung and we discovered that he was allergic and without his medication. Fortunately he recovered enough to be assisted out and back to camp and made a full recovery by the next day.

Clearing the tracks has been an annual autumn job for the past lew years so that they are ready for the winter river fishing, but there are indications that some are being increasingly used by angle induring summer and may need to be cleared twice a year. Given that this track maintenance is funded directly from fishing lice nee revenue we would only consider clearing the tracks if there is a benefit to anglers as opposed to other users feedback from anglers on this issue would be appreciated.



Murray Watkin mikes some adjustments to bis "pram" - the Backtold mourn: Photo: Errol Cualny



An extensive track network attows anglers to access prime fishing spots like the Cliff Pool on the Waitabanui, Photo: Kim Alexander Turia

CHILDRENS FISHING DAYS

By Kim Alexander-Iuria Tougariro National Trout Centre Society Volunteer Graham

Volunteer Grabam Hamilton and Arckalera Turia (aged 6) Photo: Kim



the highly enjoyable children's fishing days have begun with four days held so fur this year at the Tongariro National Trout Centre, under the guidance of the Tongariro National Trout Centre Society volunteers. Close to 1000 children have had a wonderful time, and caught their first trout from the pond.

Rain or shine the children have come from all corners of New Zealand and enjoy ed the thrill and joy of using a fly rod to catch a trout. They particularly enjoy striking when a fish bites and revel in the challenge of controlling the rod through the antics of a hooked trout until h can be safely netted. Each trout is weighed and measured before being carried house by their triumphant young captors. The poud holds fish of all sizes from 200g to larger fish weighing dose to tkg. These larger lish require more skill to land and have proved to be particularly challenging to catch.

REMAINING DATES FOR THE CHILDREN'S FISHING DATES:

Sunday 20 August

Sunday 24 September (School Holiday)

Sunday 22 October (Labour Weekend)

Gookings can be made by telephoning the trout centre volunteers at the River Walk visitor centre on (07) 386 \$0\$5 between 10 am and 3pm daily,

by email troutcent re@reap.org.nz

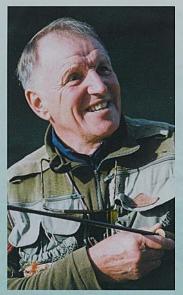
by website: www.troutcentre.org.nz

or by lax: (07) 386 8490

Tongaruro roll cast

By Herb Spannagt

Herb bas fished the Tongartie River for 36 years. A highly innovative angler and the author of many articles on fishing and casting Herb is been at the forefront of invoducing the Tongarina Roll Cent to Tailpo angles. Photo: Brendon Matthews



the Tongariro River has been the bivthplace of many flyfishing innovations and the gateway for quite a few introductions from other parts of the flyfishing world. Just think of the shooting head, Red Setter wet fly, Globug, Tongariro bomb, and all the adaptations to upstician nymphing for migrating ratinbow troat. All these can be traced to this famous river and all of them during the thirty-six years that Thave fished there.

The Fongariro Roll Cast (TRC for short) is the latest contribution to fly-fishing that has come from this illustrious water. You may wonder how this cast got its name. After exhaustive research into the roll casting family, which includes all the so-called Spey casts, I have come to the conclusion that this roll cast as it is practiced on the Tongariro River, is sufficiently different from other roll casts that it fully justifies its own name. The cast itself has been attributed to Turangis Jamie Davies, who told me that he chanced upon it during an attempt to recover a failed conventional roll cast. Sounds æasonable to me.

Before I introduce you to the actual mechanics of the Tongarico Roll Cast let me highlight its significant attributes.

- Only minimal back casting room is required, hence you can fish places others can't,
- · You will never get hit by a "bomb".
- Say goodbye to the dreaded tailwind (and collapsed back casts)
- Your nymphs spend less time in the air and more time in the water than with conventional overhead casting.
- The cast is also less tiring and nor so hard on your flyline.
- · Leader length and bomb weight is less critical.
- You can get excellent results with gear of a lighter AFTMA rating (ie. # 6 or #7)

As you might expect there are also downsides (I hope you didn't expect a free lunch).

- The east is not easy to learn
- . The cast gets more difficult the deeper your wade
- It does not penétrate a headwind as well as an overhead cast
- You will get lots of folk asking you for a lesson which is great for the ego but seriously curs
 into your fishing time

The Essence of a Roll Cast

Every roll cast breaks down into two parts. The setup and the forward cast. Because advanced roll casting is relatively new to this country you ought to know that the difference between all roll casts is purely in the set-up stages. That is everything you do "hefore" you launch into the delivery. The delivery cast (or forward cast) remains identical with all of them.

Lets Get Down to Practice

To begin with there are two terms you will need to remember. They are fundamental to all roll easting.

Anchor- Is the temporary resting position of the indicator, a little bit of line and the terminal rig. D.L.oop = Is the dynamic loop, which forms between the anchor and the rod tip. Its shape resembles the letter D. It doubles as a hack east.

The Tongariro Roll Cast is easiest to learn if it is broken down into live phases.

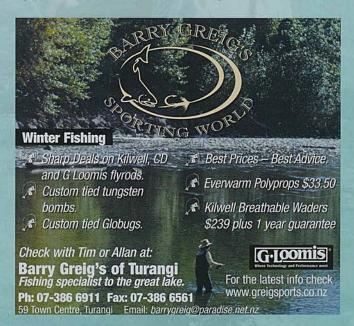
Phase One - upstream line repositioning

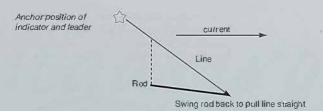
Reposition the line from the downstream fishedout position A to the new upstream target B.



Phase Two-setting the anchor

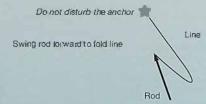
With a horizontal and sweep backwards pulling B straight and towards you so that the indicator comes to sest about two-rod lengths in from of you. Final distance depends on how much anchorage you need. Ensure that the line and leader are straight.





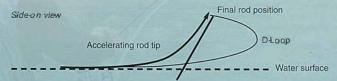
Phase Three - rdeasing line

Still with a horizontal rod, sweep rod forward whilst releasing about 1-2 meters of previously retrieved line back onto the water surface directly beside you. Use water tension to pull line through the guides



Phase Four - D-loop

This phase forms the D-toop. Begin by sweeping the rod tip back from its horizontal position on a backward curving path to end almost vertical. Throughout the sweep speed up and finish with a small upward kick to ensure the D-Loop is airborne. Wait a fraction. While you are waiting pull the casting arm down and in so that the dlow is close to your hip. During this pause all the spare line on the water is taken up and becomes part of a big ger D-Loop.



Plase Five - forward cast

During the very brief pause (while the D-Loop bellies out behind you) watch the indicator and the slack line on the water.

Do not look at the target or anywhere else. Only-look at the line in front of youl!!!!!

As soon as all is straight, tight and almost off the water (and the indicator is beginning to move towards you) the D-Loop is fully formed. This is the precise moment to start the forward cast Don't forget to raise the line-hand during the D-Loop forming pause so that you can complete the cast with a brisk down hauf of the line Finish the cast with a hard rod stop.

SideOn Views of the Forward Cast



Red and line acceleration

Rod stop

Line shoot and down drif:

During this final phase the D4 oop will roll forward and eventually lift the "Anchor". After that it becomes a conventional narrow forward custing toop.



CUTTING EDGE FLYLINES FROM AIRFLO

No other fly-line looks like it or performs like it!

For over 20 years, Airflo has been at the forefront of fly-line development – Teflon coating, variable buoyancy, welded loops. Now, with new Ridge Line we've taken a giant leap forward. New Ridge Line outperforms every other fly-line in terms of shootability, self-lubrication, memory and buoyancy – by miles!

Its unique ridged design dramatically reduces the line's surface area on the rod rings while at the same time, thanks to its grooved structure, Ridge Line also offers phenomenal water retention. The combined effect means that no other fly-line in the world can compete with Ridge Line for sheer casting capability.

AVAILABLE IN DISTANCE TAPER 6 – 9
WITH A NON STRETCH POWER CORE IN
SLATE GREY AND PRESENTATION
TAPER 4 – 7 IN LICHEN GREEN.

- LOWER FRICTION
 Thanks to vastly reduced friction on rod guides
- AMAZING BUOYANCY
 Larger surface area dramatically improves floatation
- FANTASTIC FLEXIBILITY
 Braided core to cope with cold conditions
- LONGER LASTING
 Ridge line is guaranteed for 5 years from cracking

REGULAR FLYLINE



Regular line has up to 200% greater contact with rod ring

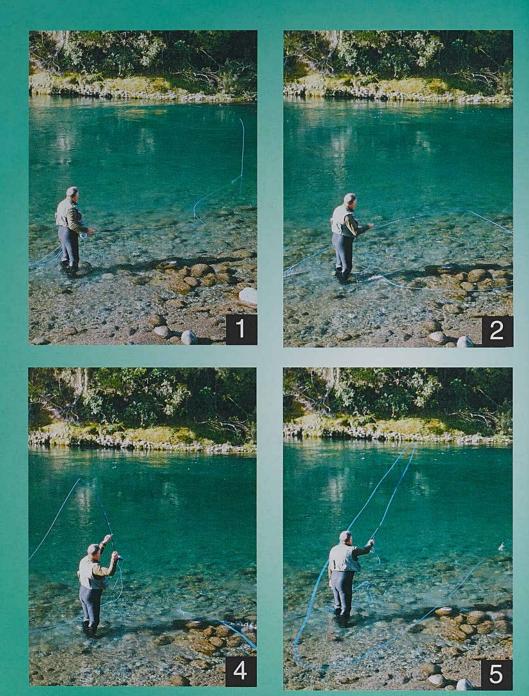
RIDGE FLYLINE



Reduced surface area for minimal friction



...a real revolution in fly-line technology!



Photos: Brendon Matthews





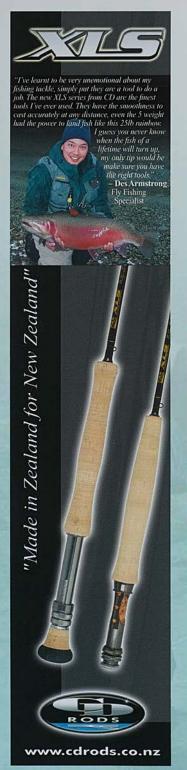
Important points

- Always position the anchor outside of your rod tip to avoid the Decop and fly coming up under the rod or into your body.
- · Pall line and leader straight as you plant the anchor
- A short line hard in phase four will speed up and deepen the D.Loop.
- Do not staft the forward cast until all the line on the water has straightened and lifted into the D4,oop.
- Make sure that some of the thick belly of the line is still inside your tip ring at the start of the forward east
- · Reep your elbow close to your body during the start of the forward cast.
- Drive the rod tip on a straight and slightly rising path to ensure a tight loop.
- · Never raise the easting hand above your ear.
- Do not move rod tip in a downward curve.
- If you hear your tine/indicator "popping" beside your ear than your anchor has not held and the east is jost.
- Match the anchor position to your casting ability. For example even a small globug provides more anchorage that a flare and Copper nymph. With more anchorage it follows that prior to the forward cast you either have to leave less line on the water or you must drive the rod harder. Only time on the water will teach you the right combination between anchorage and rod power to getgeod lift of
- A long belly WF floating line is the best compromise for this east.
- It is always easier to perform this east when the river is on the side of your rod hand.
- The deeper you wade the harder it is to produce a fully acrialised Dtoop. In practice it is more sensible to come back into shallower water where you can make up the extra distance with very little effort.
- On some casts the forward line energy is insufficient to fully turn
 the leader over. Do not re-cast, as the slack leader will help your
 nymphs to plunge freely to the bottom.
- It is not recommended that you use a power stick of a rod. On the contrary use a rod that you can feel loading against the energised D400p.
- With a well-balanced rod/line combination and by applying the right technique, very little effort is needed to roll east heavy bombs in excess of 20 meters
- The langariro Roll Cast is not just useful on the Tongariro. It is an invaluable easing aidfor light line/short rod summer tishing as well.

Learning the roll cast

Because the Tongariro Rol Cast is both a very dynamic and also aprecision exercise it is a bad mistaketo try to perfect all free phases at once. Start with phase one. Hone it until you can do it on autopilot, Only then go to the next phase. When you can link both together and perform them well add the third... and so on. Each phase relies on the previous phase to be perfect. Generally speaking there is no such thing as at bad not cast it either files or it does not. It is that serious or that funny depending on your outlook in life.

You need water to practice this cast. Wade in up to your anklos. The ideal maining venue is the shallows of a slowerunning river. The ideal position for a right shander is to have the river on the red handside when facing downstream. The slow current keeps the line always straight and tight and allows you to pull slip line, form a D-Loop and shoot. With no need to reposition the line you can repeat from place two onwards over and over again.



The flongariro Roll Cast looks deceptively easy when done by an expert practitioner but, as you will find out, that is an illusion. Take he art though, I orticked it at the genatific age of 67. It took me three years, largely because I had no instructions or help other then the chance to briefly observe a guy doing it in mirror image on the other side of the Hydro Puol. The rest was practice, experimentation, practice and more practice. Looking back I would have given my eye teeth for an article such as this. You will still need to put in the hard yards though. Biomechanics will us that it takes 5000 repeats to imprint an action into must be memory. Tam commend I needed at least triple that mumber. Take discovered emotions I never thought I had (everything from throwing infamile rantoms to situaping into deep depressions). But hey, all that is distant history, now that I have got there.

After the demise of the earth bank that provided a narrow easing platform on the true right of the Hydro Pool, the boulder wall of the Bridge Pool is now the home of the Tongairo Roll CastingA cademy. Here you will have more chance to see a master blaster of this graceful cast than anywhere else on the Tongariro River. Just watching is a feast for sore eyes for some or an incitement to commit suicide for others.

I believe this is the fly cast of the future for Tongariro style nymphing. Similarly those anglers who have mastered it will not just eatch more lish, more easily; they will also have passed an important personal milestone on their flyfishing road to perfection. Now, that should be enough to get you cracking.

LEARN THE TONGARIRO ROLL CAST FROM HERB SPANNAGL IN PERSON

IN CONJUNCTION WITH THE TONGARIRO NATIONAL TROUT CENTRE SOCIETY, HERB SPANNAGE WILL UNDERTAKE A CASTING CUINC ON THE 26 AUGUST 2006 (BACK UP DATE 27 AUGUST FOR BAD WEATHER).

Herb has kindly donated his time to conduct this clinic under the expectation that participants will donate \$50 per person to the Society Herb supports the aims of the Society which are to develop promote and expand the Tongariro National Trout Centre, in partnership with the Department of Conservation; to enlighten and inform children and educate all visitors about trout, the Taupo Islaery, New Zealand freshwater ecology; to see and enjoy trout in their natural habitact to collect, preserve, maintain and display freshwater fishing memorabilia and artefacts and to encourage participation in recreational fishing as a healthy and pleasurable activity. All proceeds from the day will go to the Society.

TIMING OF DAY:

- Meet at the Whakapumauranga Downs Learning Centre (Classroom), Tongariro National Trout Centre at 10.30 am (4kms South of furing i).
- Introduction and Video
- · Demonstration of cast at the Upper Birch Pool
- Iunch at 12 noon at the Classroom (BBQ sausages, coffee and tea-will be available at a small cost or you can bring your own lunch).
- Depart for the longariro River for instruction 1pm (location for instruction will be decided on the day as it will depend on the wind direction & a location that will least interfere with other angle is)

CONDITIONS:

- Limited to 20 Anglers (on a first in first serve basis)
- · Making a donation will secure your booking
- For cancell ations refunds will be given up to 19 August 2006 (No refunds after this date)
- Anglers must supply all their own gear, waders, typical Tongariro rod with a
 "Tong belly"WF or DoubleTiper floating line and "small" well treated indicators (No files or bombs are needed as this cast is difficult enough to learn
 without the handicap of weighted files).
- For bookings please comaet the Society on 07 386 8085 or email: trouteentre@reap.org.nz.

Note: The clinic is not suitable for fly casting beginners. It is an advanced cast, which is a lot caster to learn if the double haul is already part of an angler's arsing routine.

THANK YOU FOR SUPPORTING THE TONGARIRO NATIONAL TROUT CENTRE SOCIETY

Tongariro River RECREATIONAL FLOW RELEASES

By Jarrod Bowler

Jarrod is the Environmental Manager - Renewable Energy, for Genesis Energy n the 2 June Genesis Energy released water from Poutu Intake into the Tongariro River to test a gate on the Poutu Canal to meet resource consent requirements. The release was undertaken with the best of intentions in that it was to provide an opportunity of increased flows for rafters and kayakers. However the release unfortunately created safety concerns for anglers. Feedback following this event highlighted a number of areas for improvement and Genesis Energy has been working with the Department of Conservation to look at safety and awareness of anglers throughout the Tongariro River.

The Tongariro River is an integral part of the Tongariro Power Scheme. The river has two structures associated with the power scheme on it: Rangipo Dam (the intake for Rangipo power station) and Poutu Intake. Poutu Intake is situated immediately downstream of the outfall from Rangipo power station. Minimum flows of 0.6 and 16 cubic meters per second are released continuously from these structures, respectively.

It should be noted that both the Rangipo Dam and Poutu Intake have limited capacity to divert water from the Tongariro River and any flow in excess of this capacity simply passes over the structures and down its natural course. During moderate to large sized floods the scheme is shut down and no water is taken which is not only for operational purposes but is also a requirement of resource consent conditions.

Increased flows and changes in water levels downstream of these structures can occur at any time, both as a result of power scheme operations and natural flood events. Power scheme operations that may result in increased flows downstream are maintenance activities such as faults or unplanned outages. and compliance with resource consent conditions. Planned recreational releases, which are a resource consent requirement, occur on the Tongariro River three weekends every year. Natural floods on the Tongariro River tend to be very "peaky", that is they rise and fall very quickly which can produce very large flow changes over relatively short periods of time. This is because the Tongariro catchment is large, located at high altitude and subject to high intensity rainfall events. The river is also steep and fast flowing with a large flow capacity.

In consultation with the DOC, Genesis Energy has designed new warning signage to be erected at key entry points along the fishable reaches of the Tongariro River aimed at informing visitors to the area about the power scheme and the likelihood of flow changes occurring at anytime. Genesis Energy is also modifying its operational procedures to ensure that any planned maintenance activities either occur at night, thereby limiting any effects on anglers, or are well publicised before an event occurs. However, it should be recognised that not all events can be planned for and that unplanned scheme outages, emergency situations or requirements of resource consent conditions may dictate that flow changes occur with little or no warning.

Rivers are active and ever changing environments and so understanding and awareness of these rapid changes is key to personal safety while enjoying this and any other rivers in our area. Please check weather forecasts before venturing into the river and ensure you have safe passage to exit points in case of emergency. Most importantly if in doubt, do not attempt a crossing.

River flow and rainfall information for the Tongariro River is available at: www.hydro.genesisenergy.co.nz

WARNING

HYDRO POWER SCHEME OPERATING UPSTREAM



Water level and river flows in the Tongariro River may change rapidly without warning

Recreational Releases 35 cubic metres per second for 6 hours are planned from Poutu Intake on:

- Saturday 29th April 2006
- Saturday 17th June 2006
- Saturday 16th September 2006

Rapid flow changes may also occur at anytime due to natural floods
For further information please visit www.hydrogenesisenergy.comz



NEW RESEARCH

By Glenn Maclean

As our very successful study into tracking the movements of rainbow trout in Lake Taupo (Target Taupo #50, 51) comes to an end, this has provided an opportunity to move into a series of new investigations.

Survival of juvenile trout

In recent issues we have discussed our plan to try and unlock the key to juvenile trout survival when they migrite to the lake at about 18 months of age This is the major bottleneck controlling the size of the subsequent adult population The size of individual fish at outmigration is clearly important but survival is also likely to be influenced by the timing perhaps river flow conditions, currents and food availability in the lake and so on Hunding from Genesis Energy as para of the Tongarico Enhancement Fund provides the opportunity to tackle this issue on the required scale. There are several ways we can approach this project using different types of tags and recorders, each o twhich has adventages and disadvantages.

To establish which method we should use for the full project we are trialling the two options on a small scale this season

As reported in the last issue of Tanget Tanpo, in the first trial we have set up a project to track juvenile to art in the Waipa Sueum using passive integrated transponder (PIT) tags As the fish move downstream they are detected as they pass past the Waipa fish trap and again hopefully when they return to spawn in three years time. These rags, which are much like those proposed for micro chipping dogs.are relatively cheap and easy to use flowever they can only be detected when they pass within a few centimetres of the aerial and it is building an effective agrial which is the challenge. In the Waipa Stream the aetial is built into the trap and shows promise but whether it is a sible at the Tongairo Delta, which will be necessity for the full project, is much less certain.

Initially, our plan was to routinely tag juvenile

Super gine is used rather than stitches to close the cut made to insert the tag because of the small size of the fish.

Photo: Mark Venman



PROJECTS

trout in the Waina Stream over the next few years and follow their progress In April we obtained animal ethics committee approval for the tagging technique and in May we tagged the first 50 small trout However two issues arose; firstly at this time of year it takes considerable effort to catch sufficient fish for tagging and secondly and more importantly the most effect tive way to catch these fish was using electric fishing which may harm the adult spawning trout also in the stream. In simple terms the larger the fish in the electric field the greater the potential difference that it is exposed to and the hanler it is hit For example research overseas shows that electric fishing can affect the future development of the eggs in the female fish.

As a consequence of this we have modified our approach to concentrate tagging over the summer months when more young fish are likely to be present and similarly many fewer spawning fish. Hand in hand with this we will attempt to build an effective aerial at the Delta next summet to see if this is a practical option. The other trial planned for late this year is to tag juvenle trout in the lowerTongario River using acoustic tags much like we put in the adult trout in lakeTimpo, only much smaller. These tags are belief to use and very expensive but can be detected by automatic loggers from hundreds of metres away which is a big advantage.

Depending on the results of these two trials we will embark on a major project in the 2007/08 season to track the progress of juvenile trout as they enter the lake and then determine which of them survive and what the characteristics are of these successful lish. If we use PIT tags this requires we track the tagged fish as they pass out over the Delta and then again when they return to spawn, but if we use acoustic tags then we need to follow their progress in the lake until the batteries die.



Comparing juvenile monitoring results with the Waipa Stream run

We have been operating the Waipa fish map to estimate the size of the Waipa stream spawning run since 1998. Similarly we have been monitoring the size and numbers of juvenile trout in the Tongario and Whink au rivers on a monthly basis since 1996. Now that these programmes have been running for a number of years we have enough data to undertake a desktop investigation into whether there is any obvious link between aspects of the juvenile population we have measured and the subsection spawning migrition 2 or 3 years late of For example there are some hims that the number of large juvenile fish is an indication of future adult numbers.

Genetics of spawning trout

As reported in issue 51 of Target Taupo a comparison of spawning fish in the Waipa Stream (Tongariro River) and Te Whaiau Stream at Lake Otamangakan using microsatellite analysis revealed significant genetic differences between these two strains of fish, despite the relatively short period of isolation. This result while significant in itself, opened up the opportunity to test whether there are differences between the fish spawning in different Taupo tributaries, and between early and late run fish in the same stream If the re are differences this could have major management implications in terms of the need to manage individual spa wning runs or components of the same spawning run quite separately. For example it might be necessary to provide greater protection for early run fish so as to protect this trait

The analysis requires collecting a fingernail swed piece of the anal fin from 50 fish for each stream or part of the nin being studied Samples will be collected from 9 streams, either when the fish pass through our maps, from angler caught lish or by catching the lish by a variety of methods ourselves. Taking the sample in this way does not harm the fish but the logistics of getting sufficient samples from some of the scremasis certainly a challenge. We will collect many of the samples this winter and the remaining samples next-winter before sending them to a lab for analysis.

Monitoring growth and survival in Lake Otamangakau

In recent years we have been puzzled by

the lack of trop by trout (10lb or 4.54kg and bigger) in Lake Otamangakau de spite large numbers of fish just under this size and in excellent condition in the trap runs. In general trotte do not grow particularly quickly in Lake Otamangakau but continue to grow after each spawning Therefore trop by fish te nd to be relatively old and we would expect some of these slightly smaller trout to become trophies the following season. Last winter was no exception with 14% of rainbows trapped 36kg (8b) or larger yet this summer very fe w trophy fish were reported It will be interesting to see what we trap this winter but so far there have been few very big fish If the trophy fish don't show up it raises the question - have the slightly smaller fish in the rim last winter died or are they still present but just didn't grow anymore? To answer this we need to be able to follow the progress of individual fish and the PIT tags that we have been trialling on the Wraipa Stream in conjunction with the operation of the Te Whaiau trap provide an excellent opportunity to do this.

As soon as we have animal ethics committee approval we plan to rag a number of rainbow and brown trout as they pass through the map to spawn this winter. It's a very simple procedure in fish of this size and we intend to repeat the tagging next winter. If the selfish return to spawn the following year they will most likely be caught again in the Te Whahru Trap and a detector in the measuring board will read the tag and identify the tish If it reappears the fish has obviously survived and by comparing its length and weight with the previous year an accurate estimate of growth can be obtained.

Side scanning sonar to count trout in shallow water.

One of the outcomes of our project to track the movement of trout in Lake Taupo was a realisation that trout spend the vast majority of their time within 20 metres of the surface. While this is comforting for anglers in that the lish are generally in reach this also has major implications for our ability to accurately count the trout population in the lake using standard echosounding techniques. These rely on a downward looking be an which spreads out as it gets deeper, While it provides excellent coverage at depth, by its



Fish like this brown trout beld by Mark Venman will be Pff tagged as they pass brough the Te Whatcu trap. Photo: Shar Joyce very nature it is very narrow close to the boat. Similarly any fish close to the surface are likely to be spooked by the boat passing directly overhead before they are counted. As a result this technique underestimates the population in the surface waters, the very zone so favoured by faupo trout.

To overcome this problem we are exploring the use of side scanning sonar which still utilises a vertical beam to count the depths but also a horizontal beam to scan the surface zone. Sending a beam side ways is much more complex as there is no bottom to detect and so it is difficult to determine the extent of the area scanned Similarly, intenference can be caused by the beam deflecting off the surface or the bottom in shallow water Practically, it is more difficult to use if for no other reason than it is essential to avoid rocking the boat

and causing the beam to tilt up and down Nevertheless this area of acoustics has developed considerably in recent years and there are now machines available which could effectively count the surface zone of Lake Taupo However these have generally been used on much smaller lakes and the biggest challenge is to adapt their use to the exposed expanse of LikeBrubo.

Over the next few months we are exploring the options to use this technology on the lake. This technique certainly poses some technical and practical challenges but if we can overcome these it is capable of producing an accurate estimate of the size of the trout population. Ultimately this is an absolutely fundamental piece of information we need to manage the fishery.

IT'S NOW OR NEVER NOW OR NEVER TO DIDYMO

By Glenn Maclean

the invasive alga didymo has continued to spread through the South Island and in recent weeks bas been confirmed in the Gowan River off the Buller Haser River (Cittha). Upukerona River near Te Anau and Ohau and 'Fvizel rivers in the Waitaki catch ment Fortunately at this stage didymo does not appear to be in the North Island but this highlights that once didymo crosses Cook Strait there is likely to be little that can be done to check its spread and impact here.

There is a fair degree of apathy amongst anglers and other river users over this issue Far too often! have heard the comment his coming anyway so what is the point of doing anything. Well let's put it in simple terms if didymogets to this area and forms nuisance blooms then you won't be fishing the Tongariro River or any other infected river

because your gear will be continuously clogged, you won't eatch as many fish in the lake because almost certainly the recruitement of young fish into the lake will be reduced, and frian cially a lot of people in this area who are dependant on the \$80 million dollars spent every year by Taipo anglers are going to take a big hit Yes there are some "if's" in this scenario but there is no good reasonn of to think that this will be the fikely outcome. Furthermore once didyno is here there is no obvious fix. Maybe science will come up with a solution, let's hope so, but it doesn't look promising at the moment.

So it comes down to stopping it getting here in the first place it is as simple as that

This means taking action now! There is no knight in shining armour who is going to solve this problem for us. We are all in this together and it is up to each of us individually

Some of the local didymo team trying to collectively make a difference light to Right, Jarrad Bowler (Genesis), Glenn Madeun (DoC.). Steve Smith (Fish & Game), Mike Birch (NZ Recreational Canoeing Association)
Photo Kim Alexander Tunta



In May a conference was held in Montana to review the current knowledge of didymo and the management implications. Key points to come out of this were that one or more strains have changed and now produce excessive amounts of stalks. This is the strain found in new Zealand and parts of western USA and Canada. Furthermore the single most likely vector to transfer didymo is felt soled wading boots. Didymo can survive on moist, dark felt for greater than a week.

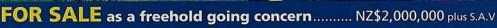
to take responsibility to keep didymo outYes, some agencies and groups are undertaking special initiatives but the key is that each of us clean our gear as a matter of routine and encourage those around us to do the same: For all the signs, brochures, posters and the like it is very clear that the most effective way of getting the message across to date has been one on one contact

The message is very simple: take 5 minutes to clean your gear each time you use it and encourage your friends to do the same. We do it as a matter of course when we fish in saltwater to protect our gear so why not when we fish in freshwater to protect the rivers and lakes we treasure. Don't think about it, just do it - whether or not you think there is any likelihood of your gear being infected. Remember that while didymo is the focus of attention at present there are any number of other nasties that we would hate to see introduced and cleaning your gear is also guarding against these. Spray your gear with 5% detergent or better still dunk it in a bin of detergent solution and then spread it out so it dries thoroughly Pay special atten-

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Glenn Maclean,
Programme Munager
Technical Support and
Nicola Etheridge.
Community Relations
and Technical Support
Manager domonstrate
bow to clean your gear
at a public meeting in
Turangi.
Ploon: Kim Alexander-

Photo: Kim Alexender Turia tion to feltsoled wading boots.

If you are a kayaker then 5% household disinfectant is just as effective but won't leave your seat slippery. It is not possible to completely remove the risk of accidentally irmsferring didymo but by the same token practicing the check clean and dry routine will very significantly reduce the likelihood Locally the Taupo Fishery Area is part of a group also comprising DOC in its wider role, Eastern Fish and Game, Genesis Energy, NZ Recreational Canocing Association and Tuwharetoa Maori Trust Board. This group has no statutory responsibility for this issue but is simply an alliance of concerned organisations who believe that if we are serious about keeping didymo out of the central North Island then we need to take action ourselves. Our goal is to get a practical and effective campaign up and rollink which other agencies can then build upou.

WE HAVE ADOPTED A 2 PRONGED STRATEGY:

- Promoting more intensive border control by Biosecurity NZ at departure points from the South Island.
- 2. Implementing a regional campaign to encourage people to clean their gear.

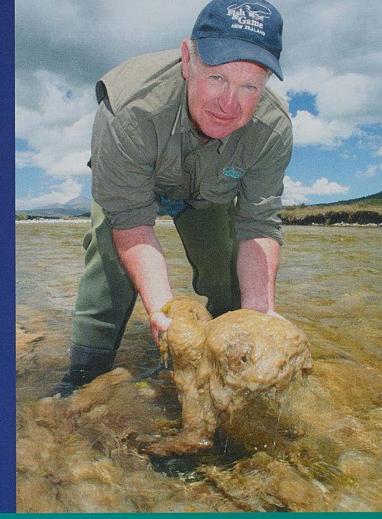
It is never going to be possible to ensure that everyone has cleaned their gear However if the majority of highest risk users practise good cleanliness then this will make a significam difference to the magnitude of the risk,

The local campaign comprises the following:

- 10,000 1 litre spray bottles containing 50mls of detergent and labelled. These are supplied free to local sports shops and licence agems. Shop staff will be encouraged to actively demonstrate how to clean Jishing gear with each licence they selfand to give away a bonle to reinforce the message These bottles cost our group \$1 each, reflecting very generous assistance from Premier Plastics (bottle supplier) and Eco Store (detergent company)
- Larger wash bins and detergent personally supplied to motels and aircraft operators for their clients to wash their gear in.
- Major wash stations inTurangi :mdTaupo.
 These will be high profile sites which highlight the issue to anglers :md the general public.
- Signs and posters at road ends, shops and motels
- Bumper stickers...
- · Banners in prominent locations.
- Signage and/or displays at Taupo and Rotorua airports.
- Putting the "clean your gear message" on the new season laupo fishing licence
- A prominent hands on display at the Tongarito National Trout Gentre demonstrating how to clean fishing gear.
- A programme and competition in local schools to highlight the issue and actions to take.
- Storles and publicity in the angling press and TV fishing shows.

Implementation of these actions is well advanced. It is planned to have the majority of these in place by early to mid August, Ultimately though, the success of the campaign will come down to each of us doing our part and adopting good practice as a matter of routine.

SO WASH YOUR GEAR!



Keep it out of YOUR river!

It only takes a drop of contaminated water on wet fishing gear, in a kayak, or on boots to infect YOUR river.

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Check: Remove all of novious material from all items that have been in contact with the water.

Crean: Soak or scrub all items for at least one minute with:

A 5% solution of dishwashing detergent, or a 5% solution of household disinfectant. A 5% solution is 500ml (two large cups) with water added to make 10 litres.

Dry: If cleaning is not practical, dry the item to the touch then leave for at least 48 hours before using in another waterway.

For further information call Fish & Game, Department of Conservation or go to www.biosecurity.govt.nz









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WHANGAMATA STREAM CLEARANCE

By Eriol Cudby

Callum Bourke sawing sections from a fine tog blocking the stream white Harry Hamilton galbers strength for the nextone: hemical control of the mask weed (Minutus luteus) will resume in the autumn', trumpeted the March issue of Tanget Tanpo, implying that the weed clogging this small but important, northern spawning stream would magically disappear with the waving of a wand - knapsack sprayer wand, that is.

The spraying resumed bur with not quite magical results. Die back was slow because the plant growth had slowed in the autumn but a good clearance was eventually achieved. As the plants had had all summer to develop, their root systems were extensive and the stream still required some riking to clear it, so that trout can use it. The area between Iisland bridge and the mouth is now cleared of muskweed but several areas overgrown with sedges require hand

clearing to open it right up.

Herbicide application early in the next growing season should ease the control measures required later for next year's spawning run.

Wind fallen logs causing further blockages were recently cleared by fishery staff. Poplars and willows in and across the stream in the lower reaches were trapping debris and causing blockages, while in the upper reaches, above Whangamata Road a large pine tree and massed branches almost completely blocked the stream in two places. As soon as the unimpeded flow resumed, trout were sentling through on their quest to reach their spawning grounds.







Top: A section of the stream two weeks ofter spraying with berbicide - not much sign of magic Photo: Errol Cudby

Above: The same section three plus weeks after spraying Photo: Errol Cudby



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TONGARIRO NATIONAL

New Administration Manager for Society



Ken Kimmins
Photo: Kim Alexander
Turia

when Ken Kimmins recently moved to Turangi, he never thought he would be fortunate enough to land a job that would involve working with one of the world's top wild trout fisheries. Having been a keen trout angler all his life, this was a dream come true" says. Ken, "I have had many years of pleasure fishing the Taupo acea, particularly the Tongariro where I continue today to enjoy its splendour with friends and family. To have the obportunity to help promote and foster public interest in the Taupo fishery and to work alongside the Department of Conservation is very exciting".

Ken has spent most of his life in Wellington where he worked for the Reserve Bank of New Zeal and He was a ledger clerk in 1968, the year the Wahine sank in Wellington Harbour, and progressed to hold a variety of positions over subsequent years. In 1996 Ken was transferred to Christchurch to manage the Reserve Bank's Christchurch branch.

Four and a half years later and following the closure of the branch, Ken joined the Department of Conservation in Christchurch. There he managed the visitor information cemre for four years. "This job gave me a good fins ght in to the tourist industry and the work of DOC. I was lucky to be given the opportunity to help with field work" says Ken. Each year Ken would spend a few weeks during the winter months doing predator monitoring work in take Sunner Forest Park. This gave him an appreciation of some of the conservation issues facing the country.

After his two daughters' weddings in the same year, Ken and his wife returned from the "Mainland" to live permanently at Montoa ba with their two cats 'Its great living in a relatively clean environment and having so many outdoor recreational choices at one's door step. As a result we get frequent



visitors, including our son, who is also a ke en angle r' say s Ken.

Ken says. "I'm looking forward to the many challenges of my new role as Administration Manager of the Tongariro National Trout Centre Society, I will bring to the society management skills and experience which I believe will help the society progress into the future I arrespecially looking forward to working with the dedicated team of volunteers of the society."



TROUT CENTRE SOCIETY

Volunteers Needed for Society

By Ken Kimmins

Ken is the Administration Manager for the Tonguriso National Trout Centre Society he 'lbngariro National Trout Centre Society is looking for more volunteers to help with the childrens' fishing Days, look after The River Walk visitor centre and to help with other activities at the centre.

The Tongariro National Trout Centre Society is an incorporated society, its role is to promote and foster public interest and understanding of the Taupo trout lishery, other freshwater fisheries and freshwater ecology,



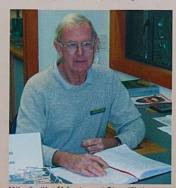
The society achieves this by working with the Department of Conservation in the development of the Tongariro National Trout Centre and associated education program,

The society relies on donations sponsorship and membership to fund much of what it does and so the help of volunteers is essential to its activities

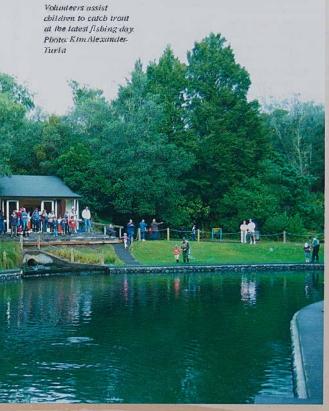
If you fish or have an interest in helping the younger generation in the art of fishing please call the society as they would very much like to hear from you or come along to one of the children's fishing days at the trout centre to see the volunteers in action.

Volunteering is a rewarding experience and an opportunity to take part in creating a legacy for the future. The options are endless, native tree planting, possum control, tishing demonstrations.TNTC tours, working with the Tatafo for Tomorrow education programme and others yet to be discovered.

If you would like to find out more about becoming a volunteer or wish to become a financial member of the society please phone Ken Kimmins on 07 3868085 or Email troutcentre@reap.org.nz, or visit the web site on www.troutcentre.org.nz.



Mike Sadlier, Volunteer at River Walk visitor centre Photo: Kim Alexander-Turia



FISHERY HARVEST SURVEY ENDS

By Rob Hood

Rob is a Ranger and part of the team that carries out our field operations work The survey is to estimate the total angling catch over the 2005/06Ta upo fishing season has ended. To obtain the necessary data required considerable financial resources, organisation, and a huge team effort from staff. For instance it was essential that survey days included the high use public holidays and weekends, and as can be imagined at times this required considerable compromise from their families.

To give an example of the scale of the saves, over 2000 anglers were interviewed on the Tongariro and the Tauranga Timpo rivers dur ing 28 survey days. At Lake Taupo boar ramps. over 3500 angler interviews were conducted. Almost all were done by our contract survery staff, Peter Wilton, David Lehnt loif, David Gade and Brendon Matthews Without their assisrance and patience (especially on the quieter days) we simply would not have been able to collect the information required. Lake l'aupo charter boat operators also assisted with the survey by allowing us to place an identification sticker on their boats which enabled us to count them separately during the boat counts. They then had to put up with us ringing them later for their catch details which for the busier operators added up to a lot of phone

calls over the year-However they were great to work with and in total we obtained catch infamiliation relating to over 425 guided trips. While sometimes faying conditions were fine and pleasant during the 240 aerial counts, too often this season it was windy, wet and downright miscrable on survey days. These days proved challenging for staff (some more than others!), but not so for the pilots of Brupo Air Services. They were contracted to provide a pilot and plane and whenever the weather allowed they ensured flights were successfully and safely completed, even when changes to the survey schedule were made at short notice.

We will now analyse the data to produce an estimate of the number of trout caught and taken from the Taupo Fishery during the 2005/06 season. In simple terms to calculate the harvest we obtain the average number of fish that angle is caught (and kept) per hour spent fishing from angler interview data. We also calculate how much effort anglers put into fishing from the aerial counts of boats on the lake and anglers in the rivers. By umltiplying the total angling effort by the average catch rate of those fishing the total catch and harvest can be calculated. In practice we also need to split the year into different time periods and areas and calculate the catch and harvest for each so as to improve the precision of the final estimate. Other useful information will also be colated including where anglers were from, if they were guided, and how experienced they were.

We would like to acknowledge and thank all those that contributed to the success of the survey. Each of you who supported the survey by giving a few minutes of your time to inswer our que stions has contaibuted to the manageme m of the fishery. By comparing the results with past surveys, we are able to a see as those factors and trends that affect the sustainability of the Taupo fishery and trends that will be reported in the next issue of larget Taupo.

Harvest Survey Stuff: Left to right (David Lepudorf, Brand on Matthews, Diwid Cade and Peter Wilton).

Photo: Inthe Greaves





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HOTSPOTS FOR SUMMER CATFISH

By Mark Venman

Mark is our Technical Support Officer and part of the research and monitoring team.



Michel Dedual, Fishery Scientist . Photo:The Dominion Post

uring summer 2005/06, we completed our tenth consecutive summer of monitoring catfish (Ameiurus nebulosus) in Lake Taupo. Monitoring reverted back to cover just the summer months (November to March) last year, as eatch rates are consistently higher during this period when the catfish are more active. Although the annual catch (winter & summer) would provide a larger sample, the winter data is swamped by the summer numbers and it is the trends observed over the summer months that are important. Additional fyke nets (as are used by cel fish-

ermen) were set this summer to obtain a larger sample size that would allow a more statistically robust catch rate to be calculated. Following on from my last article in *Target Taupo* (Issue 49), this article summarises the summer catch rates and discusses the trends in catfish distribution, size and age in Lake Taupo over the last decade.

Monitoring results

A total of 1693 catfish were caught last summer from 67 nets equating to an overall catch rate of 25.3 catfish per night, per fyke net. In comparison to previous summers, this sum-

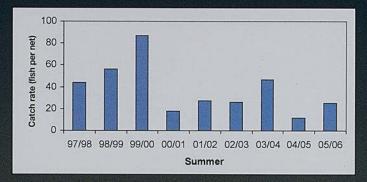


Figure 1 Summer catch rates of catfish between late 1997 and early 2006

mer produced the third lowest catch rate since monitoring began and was on par with summers 2001/02 & 2002/03. The summer of 1999/00 produced the highest summer catch rate of 87 catfish per net with summer catch rates generally being higher during the late 90's when monitoring was in its early stages. The lowest catch rate of 11.8 catfish per night was observed two years ago (Figure 1).

Where have they been hiding?

The distribution of catfish caught around the lake over the last ten summers was examined to identify any trends in the population. Of the three sites monitored Waihi has been more favourable for catfish over recent years producing almost 60% of the total catch last summer. Waihi peaked during the summer of 1998/99 at 84% but dropped considerably in the three summers that followed.

During this period it was the turn of Motuoapa to dominate, producing between 60 and 80% of the total summer catch. Since then, the overall percentage caught at Motuoapa has remained between 20 and 40%. The third sample site at Whakaipo Bay at the northern end of Lake Taupo has only ever produced a small percentage of the total catch (between 1 and 11%). This sample site is as good catfish habitat as is found in this part of the lake and the low catch reflects that numbers are generally very low in the northern half of the lake. This is likely a reflection of a lack of suitable habitat.

How big do they get?

The heaviest catfish we have caught was in September 2002 at Waihi, a male weighing an impressive 875g (1.9lb) and measuring 380mm (15") in length. The second heaviest

catfish (also male) was caught a year later at Motuoapa weighing 868g and measuring 365mm in length. The longest catfish to be caught was a male measuring 430mm (17°) from Motuoapa in the summer of 2001/02. These figures are insignificant when compared with the Giant Mekong catfish (Pangasius gigas) from South East Asia which can reach up to 150-200kg in weight and measure up to 3 metres in length!

Interestingly, the majority of large fish caught in Lake Taupo are males. Research carried out on catfish in America found that survival was greater amongst male catfish than females which was thought to be related to a higher reproductive effort in females. Thus, males may grow bigger by simply because they live longer than females.

Given that catfish greater than 370mm in length are rare in Lake Taupo, it is likely that conditions are not suitable to allow them to grow larger, unlike in the lower reaches of the nearby Waikato River. Under favourable conditions, these catfish have the potential to reach lengths of up to 500mm.

Despite the low number of catfish caught at Whakaipo Bay (2% of the total catch) many of the largest specimens we have caught have come from here. It may be that the low numbers of catfish result in reduced competition for food and those few individuals grow larger. This fact combined with the small maximum size of catfish in Lake Taupo suggests that the population may generally be limited by the amount of available food.

Female catfish caught last summer averaged 227mm and 183g and were similar in terms of length and weight to the last 6 summers, but were considerably longer than those caught during the first three

summers of sampling. Similarly, males averaged 243mm and 218g (Figures 2 & 3). It appears that there was a trend in early years (1996-99) for large numbers of small fish which came through as larger and presumably older fish in later years (2000-03) but have now passed through the population. Combined with reduced catch rates, this would suggest that recruitment has declined over the past 5 summers and that the population has peaked and may even be declining.

The fact that the population is aging is further supported by the male: female sex ratio of 2: 1 calculated for last summer which is the highest since monitoring began. As discussed earlier, males are likely to live longer than females because spawning takes more out of the females.

The condition factor of larger catfish caught over the last ten summers has varied little so we examined whether there were any differences between catfish caught at different locations. No difference in condition was observed between catfish from Waihi and Motuoapa but the condition factor of catfish from Whakaipo was slightly higher, consistent with the hypothesis that the growth of these fish is not as limited by the available food, perhaps due to their low numbers in this area.

While the trend has been a declining population, the results this summer may reflect the start of a possible change. Overall, length distributions of catfish caught during last summer showed that there were few large fish in the top range (>250mm) but there were reasonable numbers of small and medium sized catfish in comparison to recent years. It will be interesting to see what develops next summer.

Monsters of the deep?

Ultrasonic telemetry used by fishery staff during 1999 to track tagged catfish around Motuoapa Bay found that catfish were most mobile during grounds within the bay. The extensive weed beds and shallow waters within the bay provide favourable habitat for spawning which September and December. However over the whole study period which included remained within 10 metres of the surface and never went deeper than 17 metres. Thus, although Lake Taupo averages 90 metres in depth and covers an area of 616km2,

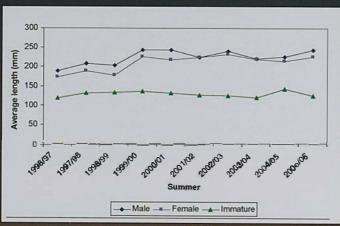


Figure 2: Average lengths of catfish caught over the last ten summers

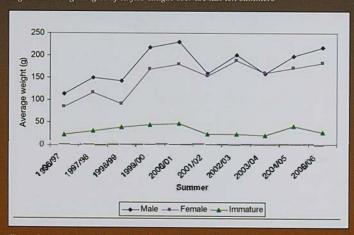


Figure 3: Average weights of catfish caught over the last ten summers

catfish do not utilise the vast depths and it is very unlikely that there are "monster" catfish lurking somewhere deep in the lake!

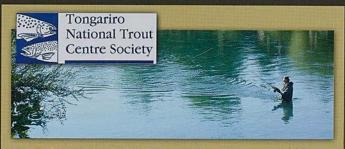
How old do they get?

Determining the growth rates of catfish in Lake Taupo is not easy, as research in Canada has shown that bullheads within all age groups consisted of both slow and fast growing individuals. This means catfish of the same length may be different ages, making the determination of age groups from length frequencies alone not practical. We came across the same problem when we analysed mark-recapture data of tagged catfish that we initially tagged and measured and subsequently recaptured and measured again while conducting routine monitoring. Despite similarities of growth amongst some individuals, other individuals displayed large variations in growth.

Growth can also be calculated by counting the growth rings on the 5th vertebrae and relating these to the length of the catfish. This is time consuming and is best done at the end of winter when the rings can be viewed more clearly. Crude estimates from what data we have suggests catfish average 80mm in length after one year, 160mm after two years, 280mm after five years and 315mm after 8 years with growth rates being most rapid during the first two years. Thus these larger fish caught each summer are either older than 8 years old or simply grew at a faster rate than the majority of the population. It would be good to investigate this further at some stage in the future to obtain more accurate estimates of age and help us determine growth rates for Taupo catfish.

Summary

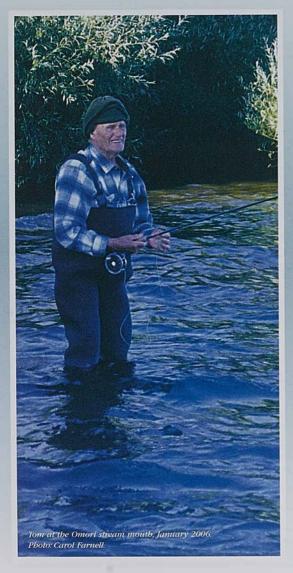
The catfish population is currently small in comparison to earlier years due to relatively poor recruitment over recent summers. The low catch rates at Whakaipo Bay highlight that a large percentage of Lake Taupo is actually unsuitable habitat for catfish. The small maximum size of catfish in Lake Taupo reflects that their growth is likely to be limited by food availability.



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.

Name:	
Address:	

When I'm



and the second second

By Carol Farnell

National Tront Centry on his way to the Tongariro National Tront Centry on his way to the Tongariro River Tom Griner got talking to fishery tanger Rob Hood about his day out on the river Tom has tished in the Taupo area for over 90 years which is a huge achievement in itself.

This is a story from Tom's daughter Carol about his experiences over the years

His passion has been fishing especially for as at in take Tampo In his younger days he loved to go deer stalking as well and Tom is a life member of the Watkato Branch of the NZ Deers talker's Association.

Tom was introduced to fishing at the age of four As a 14 year old his firther Tom Senior, along with his fither's brothers who owned quarries and were road contractors (Grinter Bros.), gathered up young Tom to drive steam ollers for the mWhenever a contract was completed they would edicbrite by all going to Acacia Bay, where they enjoyed fishing for trout from a baunch.

In 1953, Tom and his wife Melva discovered a tack into the Kuratau river mouth There they spent a pleasont summer holiday, camping with the late Jock Exceg and finitly and the late Cyril Maule and finitly from la unarunui All keen is shemen they would go out in boats by day (harling or lead lining) and then fly-fish at the Kuratau river mouth, the Kuratau spit or the Omori stream by night.

Between 1960 and 1984 people campe dalong the cliff edge on Maori land at the end of what is now Te Ara Huri Street. Tom and Melva usually placed their caravan in the same spot for three months over summer each year Cycil and Rose Maule placed their caravan along-

944

THOMAS EDWARD GRINTER - BORN TE KUITI 1912

Top right: Building frout beside the take edge at Kurritan in the 1970's, Photo: Corol Farnell

Below:Anoushka (6) benefits from Tom's years of experience (Feb 1998) Photo: Carol Farnell. side What fun friends would have fishing from their boats from early morning until apm or so then going ashore to eat a pienic lunch on one of the heaches, perhaps Scenic Bay or Cherry Bay. fate afternoon they would prepare the trout they had caught for either smoking or bottling. This would be shared around family and friends. The limit was 20, then later down to 12 and it was very common to get their limit. Now the limit is 3 and you feel very fortunale to even get that many.

The state of the s





Each night Tom and Cyril and at times Tom's son-in-law Brian made up a happy trio, lishing until midnight, usually at Omori. They made their own flies. Fom still has an amazing collection of feathers and hair, Over the years forn had great success with stainless steel hires he made for himself and friends. He put a type of silver checked cellotape on them. Around the Western Bays and the southern end of the lake, there must be many of them hing on the bottom from the odd one that got away over the years.

Tom lost his wife Melva (his favourite fishing companion) in October 1986. From 1985 he stayed in a cottage rather than a caravan and drove from Auckland to Kurarau towing his Sea Nymph boat behind his beloved green and black Chrysler Valiant until 2003.

Tom has so much enjoyed teaching young ones to east, the files and fish the lake. Many a pleasant hour was spent teaching his guardsons Andrew and John to the files and now his great grandsons, Christopher and Matthew are very keen (at 5 and 10 years of age) to lish for trout. The last 2 years the young ones have brought him to the lake for a few days fishing and this New Year period, he was overpyed to be at the bach again. Tom even managed 3 nights fishing at Omori, not bad, for 94!

PAUL GREEN QSM

Kim Alexander-Turia

Kim has recently started with us and is Programme Manager, Community Relations.

Paul Green (left), Paramount Chief Tumu te Heubeu & General Manager, Maori Trust Office John Paki in Lilbuania at the World Heritage Committee Photo: Joe Harawira Twas a surprise to Paul Green but not to many others when he was recognised with the Queen's Service Medal for public services in the 2006 New Years Honours list.

Paul started his career with Lands and Survey Department in 1974 as a ranger in the Tongariro National Park at Ohakune. During the next 13 years he worked in a range of locations within New Zealand and overseas including Fiordland National Park, the Hauraki Gulf Maritime Park and was an exchange ranger at Australia's Kosiosko National Park. These wide ranging experiences culminated in his appointment as Conservator in 1989 of the Tongariro Taupo Conservancy of the Department of Conservation.

Paul has an absolute passion for the outdoors; his interest sparked as a teenager by weekends spent tramping the rugged Tararua Ranges, often with the Wellington Tramping and Mountaineering Club. In 1968 he and friends spent four months exploring and climbing in the Peruvian Andes, an adventure which remains a highlight in his life.

While Paul is not an angler himself, when it comes to supporting the fishery you can't find a better advocate. He provides very strong support to the Taupo Fishery Area and is actively involved in the Tongariro National Trout Centre and the society that runs The River Walk visitor centre. The President of the Tongariro National Trout Centre Society, Eddic Tonks says "Paul's contribution to the affairs of the society since its inception has been enormous with his willingness to share his knowledge and expertise being invaluable. I personally believe Paul's ongoing com-



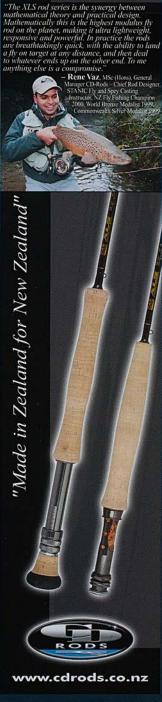


mitment has been a major factor in the society's successful development over the last few years." Paul was integral in Tongariro National Park becoming the first World Heritage Area in the world to gain Associative Cultural Heritage status. Working with Ngati Tuwharetoa is a gratifying part of his job and Paul has enjoyed his role in developing and strengthening relationships with local iwi. He actively supports Ngati Tuwharetoa Paramount Chief Tumu te Heuheu as head of New Zealand's delegation to the World Heritage Committee, says Tumu te Heuheu, "Paul's facilitation between tangata whenua and the department has produced positive results for all parties beyond expectations"

As part of the New Zealand delegation Paul attended the 30th session of the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organization (UNESCO) which took place in Vilnius, Lithuania from 8-16 July 2006. New Zealand attended the meeting as a member of the committee and, Tumu te Heuheu took over the role of chair for the next year at the end of the session.

As well as his work with DOC, Paul is a member of the Central North Island Blue Duck Charitable Trust, the Waikato River Enhancement Trust and the Tongariro Natural History Society. He has been a trustee of the Sir Edmund Hillary Outdoor Pursuits Centre for 15 years and works with the Tongariro Whanau Support Roopu.

These days Paul still tramps as often as time allows and enjoys fine wine and good friends. Paul considers it a privilege to have worked towards the management of New Zealand's natural and cultural environment and to have shared the experience with such dedicated staff and committed communities.



REVIEW OF LICENCE ADMINISTRATION

By Storm Bester

Storm is Range: Service responsible for the day to day administration of our fishing thence system and management of ticence agents Thave recently joined the Taupo Fishery Area to take over administration of the Taupo lishing licence system. It's a big job as approximately 52,000 licences are issued each year by 115 agems, and more than \$1.5 infillion of revenue needs to be accounted for. This revenue is the sole source of funds for the management of the fishery and it is imperative that the system is effective and efficient so that we can undertake all the other tasks necessary to protect the quality of this resource.

One of the first things I did after learning the current licensing system was to go out and meet local faupo agents with Programme Manager Carolyn Poots. It was a pity we couldn't get to the agents further away but it was very useful day all the same, meeting people that play a lurge role as the front line between usand the angler.

Signature of Licence Holder

Dence If all billow lon econocil

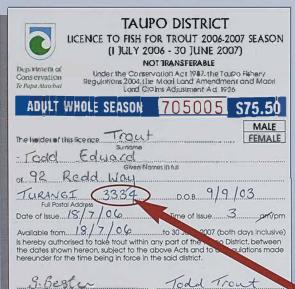
We had a lot of positive feedback, as well as numerous questions regarding aspects of the Taupo Fishery Regulations. Very worthwhile discussions were their views on fee increases. Most agents agreed that slight annual increases which kept up with the rate of inflation were preferable to hig increases every few years.

With the new seas on we are undertaking a review of our current system to see if it is still the best way of doing things if nothing else, technology has advanced so much in recent years that this may have created new opportunities For example at the moment the tracking of individual licences has to be done separately to the financial administration which creates considerable double handling. As a consequence we are looking into computerising a lot more of the system with the support of agents; we've had numerous requests for bar codling, discs versus paper, and so on So any brain busting ideas or suggestions are most welcome. In the end we want a system that works for us all.

One aspect which is not up for debate though is the requirement to have a separate licence to fish in the fi upo District. The reason for this was due to an agreement between the Crown and Ngati Tuwharetoa to ensure public access to lake Taupo and surrounding dvers. This agreement was established under the Ma of Land Amendment and Maori Land Claims Adjustment Act 1926 and also requires that only special Taupo licences can be used in the district. This is because the payment to Ngati Friwhardtoo by central government for the access to Lake Taupo and the rivers which is so enjoyed by anglers and others is indexed in part to the sale of Taupo fishing licences, hence the need to keep them separate,

Post Codes Please

When you buy your Adult Season licence the carbon copy is returned to us and your details entered into a database. This database is ubdated throughout the season as licences.



Name and Address of Issuing Offices



Storm and Jarred Goodbart from Sporting Life discuss the format of the current Taupo Iteace

Photo: Kim Alexander-Turia are sold so that by the end of the season it is complete. It is then used as the mailing list to distribute three issues of this magazine, Target Taupo, over the following season. Therefore if you buy an adult season licence for this season (2006/07) you will receive Tauget Taupo over the 2007/08 season.

NZ.Post is currently introducing post codes and it will certainly make life easier for us and more certain that you will receive livinget Teatpo next season if you write your post code as part of your address on your licence. Also please try and write legibly and use your permanent home address ruther than holiday address to ensure the mail successfully gets through.

The database also has other uses such as checking up for people who have been asked to produce their licence by our rangers on the rivers and lake and who then can't find their licence. So there is real benefit to you to rake care as you write your details down and please remember to include your post code if you know it.

A final reminder, I July has passed, and a new 2006 licence is now necessary if you are coming to fish in the Taupo Fishins District.

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By Julie Greaves

Julie bas recently started with us working as a ranger in our field operations programme.

"A cubic metre of water weighs about a tonne so that means seven tonnes per second. This is the weight of about four elephants".

It's that time of year again where thousands of anglers hit the Taupo rivers, streams and river mouths. Every day anglers wade in and out of the water without any difficulty, but what happens if things don't quite go as planned? Losing your footing when wading in the Tongariro River for example, can be potentially hazardous; injury or death a very likely outcome.

Whether it's crossing the Tongariro or simply walking out to the river mouth, are we aware of the hazards and where they are? Too often we see anglers taking unnecessary risks in hope of getting to that perfect fishing spot. Or they are not wearing the appropriate clothing or simply not wearing a wading belt.

According to ACC in the ten years to 2005, 372 people drowned in New Zealand rivers, streams and creeks, a third of all drownings. New Zealand has almost double the drowning rate per head of population of Australia and over four times the drowning rate of Great Britain. (ACC Riversafe Facts)

An accident in late July 2005 highlights just how easily things can go wrong. An angler had been fishing just above the Silly Pool on the Tongariro when he decided to take his chances and wade deeper into the river then usual. He suddenly lost his footing and was swept downstream by the current through a boisterous rapid. On the way through he hit his head and started to lose consciousness. Thermal shock set in as the icy cold water filled his waders and pulled him down under the surface. Luckily ranger Roy Baker was in the right place at the right time and saw the man floating face down in the rapid below the upper Birch Pool. Roy called for help and jumped in to rescue the angler with the help of ranger Rob Hood who had been nearby. Once on shore the angler didn't respond at first, but after 30 seconds regained consciousness and vomited the water he had swallowed. Ambulance personnel gave him medical assistance and a few days later he was back fishing again. It was estimated that he had been swept down the river half a kilometre and at the time of the accident this angler was not wearing a wading belt. The fact is that if he had taken this simple precaution he may have been able to save himself. (Target Taupo, issue 44 page 20)

Every season the fishery team takes the time to up-skill and train new team members about



Below: Wet and cold, but the Fishery team are fine after their swim down the Tongariro River Photo: Kim Alexander Turia wader safety. Part of the training includes taking a dip in the tropical (not!) Tongariro River to experience first hand the dangers of wading, and the skills we need to adopt for a safe recovery. The main safety issue that highlighted is the importance of wearing a wading belt.

HERE ARE A FEW POINTS TO REMEMBER FOR A SAFE DAY'S FISHING

Before heading out tell someone where you intend to fish and how long you intend to be.

Is it necessary to wade the river? It's human nature to think the best fishing is always just out of reach or on the other side but it's often not the case.

Be sure of your wading ability. If you are not confident in water don't wade out deep (more than thigh height) or in fast flowing water. Look for suitable pools that can be accessed from the bank or side of the river. Never overestimate your ability to walk further out into the river or underestimate the power of water. However some excellent fishing spots can only be accessed by wading so when you have to, here are a few tips to consider.

BEFORE ENTERING THE WATER

What to wear

Wading Belt – I can't put enough emphasis on the importance of wearing a wading belt. This is a life saver. You wouldn't go out on the lake without a life jacket, or drive without a scatbelt. So don't fish the river without a wading belt!

A wading belt is worn around your midriff and prevents water from entering the lower half of you waders and assists you to float. It is made out of polyester webbing with a quick release buckle and can be purchased from sports stores for a reasonable price. Not only can it save your life but helps keep you dry if you inadvertently slip a bit of water over your waders.

Waders -- Your waders should be the right shoe size, not too long or short in the leg and the correct torso size. It's hard enough to move in the water anyway without the additional handicap of ill-fitting waders.

Clothing – layering is the key. Multiple layers are effective in keeping your body warm especially if you end up taking a dip. This decreases the chance of developing hypothermia. Polypropylene





Programme Manager Carolyn Poots (right) and Ranger Storm Bester demonstrate bow to use a buddy to cross a river. Photo: Kim Alexander Turia

and polar fleece are light and fast drying and merino wool also keeps the heat in. Wearing a jacket acts as a wind breaker and will help stop water entry if by chance you do fall in.

Wading Stick – Wading sticks are a useful aid and can be as simple as a piece of wood found along the side of the river or a metal pole with a grip handle similar to a ski pole. A wading stick will provide stability when held upstream during river crossings, and is absolutely essential if you are less than an expert wader.

Polaroid Sunglass - Wearing Polaroids allows you to see obstacles under the water and secure footholds on the river bed.

SO YOU HAVE DECIDED ON A FISHING SPOT

Become familiar with your surroundings

- What is the depth and speed of the water?
- Can you safely wade there?
- What is the safest entry point?
- Can you back out if it becomes too swift?
- Identify any downstream hazards such as rocks, overhangs, trees, rapids, waterfalls. Look at what is underneath the surface of the water.
- What is your nearest exit point if you get into trouble?

CROSSING THE RIVER AND WHAT TO LOOK OUT FOR.

Crossing a river, especially the Tongariro requires extreme caution.

- Avoid crossing where you can't see the bottom.
- Sand on the bottom indicates low water velocity and makes good footing.
- Look at the depth of the water, if it is too deep you will likely begin to float and lose your footing.
- Crossing diagonally downstream in shallow riffles is best. But remember that to cross back you
 may have to use a different route.
- Keep your body side on to the current to brace yourself and reduce water pressure. Watch out for slippery rocks and take your time.
- Be prepared to turn back at any time.
- Cross with a buddy to provide greater stability (only one person should move at any time so
 that if they slip they are supported by their buddy)

AS YOU ARE ABOUT TO CROSS THE RIVER KEEP THIS IN MIND

If you are standing next to a knee deep river 10 metres wide flowing at walking pace about

seven cubic metres of water will be flowing past you each second. A cubic metre of water weighs about a tonne so that means seven tonnes per second. This is the weight of about four elephants. Imagine trying to stop that! (ACC Riversafe Facts)

What happens if I fall in?

If you do happen to fall in try to remember these points. You have a better chance if you are wearing a wading belt although you can still use this technique without a belt.

- Let go of your fish/equipment etc. (It can all be replaced, and is not worth dying for)
- Stay calm.
- Roll over onto your back.
- Keep your feet downstream of your body (its better to hit something with your feet that your head)
- Keep your toes out the water.
- Use your arms in a sculling motion and kick your feet to propel yourself towards the edge.
- Focus on an exit point.
- Avoid being swept into obstructions like trees where you risk being pinned under water.
- Go with the flow until you come to a suitable place to get out.

Wading at stream and river mouths or the lake edge

- Have a good look at the area you will be walking out to during the day if planning on heading out during the night. Take a tall stick and place it in the sand at the drop off point, this will give you an indication on how far to walk out.
- Always wear your wading belt.
- -The flow at stream and river mouths can change very quickly and also the bottom can change to soft boggy sand after heavy rain.
- Use a wading stick to prod the sand to check for any drop offs. Check with other anglers for the exact location of the dropoff. Remember that if you are standing right on top of the drop-off the sand is very soft and could give way.
- If you go over the drop-off don't try and swim against the current to get back. Adopt the same position as you would if you were to fall in a river and scull to the side of the current so you can reach the shore.

Although wading rivers, river mouths and streams can be potentially dangerous, knowing the basic wading skills, using good judgement and wearing a wading belt will help keep you safe while fishing this winter.



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FISHERY ACCESS ROADS

By John Gibbs

aupo anglers enjoy access ficilities hetter than those available in any other major New Zealand trout lishery. This is because much of the land adjacent to lake Taupo and its rivers is Maon wined and so subject to the right-of-way provisions of the 1926 Maori land Amendment and Maori land Claims Adjustment Act. This provides for a unique right of wayon foot for itemsed anglers over a 20m wide strip of most river banks. A similar right of way exists over the lake shore, except it is for all public users and is not restricted to foot access. Another reason for ready access is because most of the remaining river bank and lake shore land is in some form of public owners hip with all the rights that entails.

A network of walking tracks roads, carparks, bridges and other structures has been developed to facilitate access over the se rights of way and reserves and minimise impacts on this land. Most of these are fonded from anglers' licence fells.

There are a several roads used by angle is to get access to favourite sites in the fishery. Some of these are on land managed by DOC, some are on land owned or managed by other public agencies, some are public road and others are on private land.

In many cases, DOC, through the Taupo Fishery Area or the Turang-Taupo Area offices, analages and maintains these roads. The provision of fishing access roads and the standards to which they are maintained have been agreed with the Taupo Fishery Advisory Committee.

This fishing access road to the Yauranga-Taupo
River was built to
replace van old track that
was frequently flooddamaged.
Photo: John Gibbs



The key poims for vehicle access are:

- Roads are to be maintained to a suitable level to allow 2-wheel drive vehicle access.
 No access will be maintained that excludes anglers in 2-wheel drive vehicles.
- Providing vehicle access or not will be considered in light of existing roads and tracks. Access to a particular section of river will not be duplicated or over-provided.
- Subject to the previous conditions, vehicle access will only be provided if there is demand for it.

While the basic standard is for 2-wheel drive access, it is not necessarily to the standard you might expect of a public road intended for traffic speeds up to 100 km/h. The original construction and terrain crossed by these roads, as well as their short length, means that they are only intended for low-speed use. Thus surfacing standards and widdles are not the same as would be found on a normal unscaled public road and more care is needed by drivers



Some "roads" are not roads at all, but have been created by people taking vehicles onto either formed walking tracks or unformed routes on river beds. We actively discourage this and, where it occurs on conservation land, will physically block these tracks to protect river banks from crosion and vegetation damage.

Other roads which have been informally used by anglers in the past are no longer available as the wishes of the private land owners have changed. Upper Blake Road at Waitahanui and Hingapo Road on the Tauranga/Taupo River are 2 examples.

Most roads are maintained once a year in normal circumstances, and this is usually just before their peak use season which, for river accesses, is the winter. So don't be surprised to find some of these roads overgrown and potholed in the summer months.

Money for road construction and maintenance usually comes from the Taupo Fishery budget, but there are a few exceptions. The Taupo District Council maintains public roads, TrustPower Ltd and King Country Energy Ltd respectively maintain the Flinemaiaia access road to the Ells power station and the road to the Kuratau power station; Genesis Energy maintains a number of roads around the Tongariro power scheme which are used by anglers, and private interests also contribute to the costs of some roads.

This year, the Fishery Area combined resources with local resident Peter Sperty for the work on the Tongariro and Waimarino rivers. In total, the fishery spent approximately \$15,750 on road and carpark maintenance A somewhat larger sum goes on maintenance of walking tracks and structures. Over the years the locations of roads have changed, usually due to changes in the river channel, but also where environmental impacts of vehicle use have become excessive or unmanageable. For example, a vehicle track on the Whatekawa scenic reserve linked the public roads to the Whitahanui River. However its route ran over sections of private property which were being damaged by traffic and the owners' representatives asked that vehicle access be blocked. New carparks were formed at road ends and the river bank access is now maintained for walking only. Other examples are on the Tanranga/Tanpo River where repairs to continual crossion of the vehicle track in the Toki Street reserve became unsustainable. This was closed off and a new road and carpark formed on a nearby piece of grazing land administered by DOC. When the new anglers' carpark was built at the Tongariro National Trom Centre and a walking track formed along the

river north to the Waikari reserve, the rough vehicle track a few hundred metres away in the Paurini scenic reserve was closed to protect its natural values.

The locations of anglers' access roads and tracks are usually shown on the fishing information signs on the major rivers. However, these routes may sometimes be out of date as the cost of replacing the signs when a small change occurs is not warranted. To try and overcome this and similar problems, we are compiling an access register in the coming year. This will use modern GIS tools and will be able to be readily updated to reflect changes. As well as hard copy, it should be available on line through the DOC website when completed.



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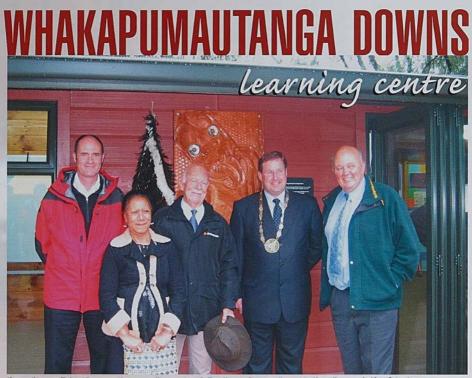
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Dean Carrott (left) (General Manager Generation & Trading - Genesis Energy). Kore Downs (wife of the late Wbakapumantanga (Darkie) Downs), Rob Lester (Bongairo National Ivon Centre Society Deputy Ordrman). Clayton Stent (Mayor of Taupo), Paul Green (Conservator) Photo: Kim Alexander Turia

by Kim Alexander Turia

n 18Ap ril 2006 the rains poured as the "Whakapumturanga Downs" learning centre was opened at the Tongardro National Trout Centre in Utuanga a sign Maori believe bodes well for the future of this initiative. The learning centre was named after the late Whakapumauanga (Darkie) Downs The Downs whanau have a special affiliation with the land where the trout centre is sited, and members of the Downs whanau were involved with the hatchery in its early develop mental stages.

Master carver Mark Kahu was commissioned to complete a carving dedicated to the memory of Darkie Downs to acknowledge his work with conservation and his people of Ngati Tuw haretoa. The carving depicts Horomatang it he kaitiaki (guardian) of Lake Taupo antic Pha. The carving has been placed on the front of the classroom, to stand guard over all those who enter



The learning centre was established to support the new education brogramme, "Taupo for Tomorrow". The programme is an opportunity for students to explore the concept of sustainability of natural resources by learning about the Prupo fishery and the importance of freshwater conservation. At the opening Department of Conservation Educator, Thea De Petris said "it was an accumulation of many months, of hard work by a number of people who contributed to the establishment of this programme and I am very proud to be involved with the project".

Children from St Parick's School, Room 11. in Taupo also attended the opening and gave a presentation on what they had learnt about water quality since their visit and participation in the programme "Tautho for Tomorrow". Their teacher Tim Fetcher said that since their visit the class had continued to study and investigate local water-quality issues.

Thea DePetris also noted this could not have been completed without the special partnership between Genesis Energy, The Tongariro National Trout Centre Society and the Department of Conservation and we extend our thanks also to the many volunteers who gave up their time to help bring the project to life.

Members of the Downs whamm, Photo: Kim Alexande-Turta





By Greg Robinson Ranger, Community Relations, Tongariro National Trout Centre

inter is well and truly here bringing with it the cooler temperatures and a noreworthy increase in fish numbers in the Waihukahuka Stream at the Tongariro National Trout Centre.

On your next visit to the trout centre see these fish which have escaped the anglers in the Tongariro River, or just take a walk around the grounds and make use of the improved path access to various displays.

You may notice we also now have signs identifying significant tree species. Come and bring the kids to search for the mighty totara or riant. Who knew there are two types of cabbage trees? There are also many other trees to view. Around the centre you will notice new lighting set high in the trees and we are also in the process of installing extra carpark security cameras to provide more peace of mind for our visitors. The lighting has been an initiative a long time in the making, the lights shinning against the canopy of the trees is not only effective at lighting the path at night but creates a great effect.

During June we had a young couple from Germany doing volunteer work at the trout centre. Daniel and Elke were rescued from heavy snow in the Tongariro National Park.

Daniel & Elke with Ranger Greg Robinson (right) Photo;Kim Alexander-Turia





New lights allow the use of the Trout Centre grounds at night.

Photo: Kim Alexander-Turia



Greg Robinson (right) and Nick Singers (Technical Support Officer) identify trees for the new tree species signs.

near the Chateau in the midst of the blizzard that hit the Gentral North Island. Lion Foundation rescue helicopter pilot Dan Harcourt said it was just before dark before they got the call and they only had one shot at getting them out, the winds being very turbulenr over the saddle. Elke was in her sleeping bag partially buried in the snow when the helicopter flew over her so they called to her on her cellphone to get up and wave to find her. Elke was reluctant to get

into the helicopter and was confused from hypothermia setting in. Daniel was found a short distance away by the ground team. They are very lucky indeed to be found alive. In gratitude, they wanted to contribute back to the community as a measure of their appreciation. As a consequence they have been clearing by, chopping wood and cleaning fish troughs.

Search and rescue do a wonderful job helping people in the region and it is fantastic to see Daniel and Elke's willingness to say thanks for their efforts. Dan Harcourt says "Special credit must be given to the search and rescue communication team and crewman Bany Sheppard". In situations such as this, every minute counts.

Finally, even though it's cold, dress up warm and come visit us at the trout centre. It's the perfect time to see the fish spawning and view the latest happening.

The Tongariro National Trout Cemre Society runs The River Walk Visitor Centre within the site and are always looking for volunteer help or new society members. If you are interested please contact Ken Kimmins at 47 386 8085.

TE PUKENGA ATAWHAI

NGA MIHI ATU KIA KOUTOU KATOA

By Michael Hill

Michael is working as a ranger in our field operations programme

Rangers, Michael IIIII
and Greg Robinson who
attended the 3 day
course in front of
Waitetoko Marce.

Photo: Kim Alexander Durla e Pukenga Atawhai is a training program designed for the Department of Conservation to enable staff to build and maintain effective working relations with tangata whenua. Maori beliefs about creation have a marked influence on the way they behave in context to conservation. To Pukenga Atawhai was created out of the recognition of the importance for DOC staff to understand what these beliefs are.

Three new staff members from the Timpo Fishery Area attended the four day program that commenced on 4 April at Waitetoko Marae. Fite marae is situated along the eastern lake shore at Te Rangi-ita approximately 4km north of Turangi on SHL Waitetoko Marae is the home of Ngati Te Rangi-ita ha pu (sub-tribe of Ngati Tuwhaireto).

tipen armal the DOC staff who where from various conservancies, gathered and were given a briefing on tikanga/kawa (protocol) for the powhiri or whakacke (walk on ecremony). The powhiri was a great way to get the morning started with whatkorero (speakers)

waith a (song) and hareru/hongi (pressing of noses or an embrace!). A koha (gift) of trees was given from the manuhiri (visitors) which were planted on the maiae.

After the powhiri we mingled over a cuppa and got settled in The classes began with the blessing of the books followed by the first kawti (topic), interacting with Maori, co v ered by Jim Maniapoto, Kaupapa Atawhai Manager, Tongariro Taupo Conservancy, This kawai was an indepth introduction into tikanga/kawa or tika (behaviour on the macae, the Go's and don'ts). It also provides an understanding of the different locations on a marae, their names and significance A mihi (greeting/introduction) gave all a chance to give thanks, say who they were and where they come from in tereo (Maori language). Organising 1 hui (meeting) and the use of whalko rero were also outlined.

Whatkorero is a ceremony shoken during a powhiri which gives acknowledgement to the whate tupuna (Ilterally house of ancestors). This ceremony pays tribute to its een-



tral ancestor and descendants down through the generations until the present and it also gives thanks to Monher Earth and pays tribute to the dead. A waitat follows whakorero and this is an opportunity for the group to lend support to what has been said it also gives mana (piestige/respect) to the speaker Our facilitates, Wheth Tipiwri presented a kawai developing an understanding of Maori beliefs and values This was a look at creation according to Maori, based on the led ationship between the spiritual and natural work!

Evan Aramakutu then presented a Synopsis of the Treaty of Waitangi outlining the histony, refevant issues, principles and content of the Imaty. The final kawaii was presented by Anaru Luke on understanding Maori tribal systems and structures. The aim of this kawaii was to help manage working relations with invit and to look at roles relationships and functions of social and potical structures. Knowing these links, processes and protocols will enable better and appropriate contact between DOC and local Maori.

We also completed a roleplay but on 1080 poisoning Participants were divided in to two groups with one side from DOC who were intending to spread but by aerial drop. The second group represented the fwi, owners of the landThis was a chance to get a feel



of what sort of questions would be asked and how best they can be answered. The hui went well although DOC were grilled from a sceptical and concerned ivi.

On the final evening we had a hak ari (feast) and on the menu was a beautiful hangi (frod cooked in earth oven). We had entertainment from our individual groups with many waiata from all.

Many thanks must go out to alf the angawera (workers behind the scenes) for their mahi (work) and their yunany kai (food). Also to Jim and all the miors involved the program covered a great deal of knowledge and the kawai we learned will be of great benelit in the future. All who attended developed a sense for life on the marae and we will have a greater awareness when working with Maost.



HINEMAIAIA TRAP AND TRANSFER

Ranger Callum Bourke releases the first trout for this winter into HB lake. Photo: Rob Hood



By Callum Bourke

Callum is a ranger involved in all our field operations. He is an entbusiastic angler with a very strong affinity for Lake Taupo Prior to the construction of the HB dam as part of the Hinemaiaia hydro scheme, the Pahikohuru and Kakapo Streams (located approx 1km upstream) contained valuable spawning areas within the Hinemaiaia river. The last spawning run to these tributaries occurred in 1965. The Pahikohuru Stream was trapped by the-thenyoung John Gibbs and Norrie Ewing, which estimated the run to be 1350 fish.

With the introduction of the Resource Management Act in 1991, all existing water users had to apply for new operating consents within 10 years. At a hearing in October 2001, the Department of Conservation challenged certain aspects of the consent application submitted by the generation company, TrustPower Limited, for operation of the Hinemaiaia Power Scheme. Fish passage for spawning trout above the dam and downstream passage for juveniles along with a more natural flow regime in the lower river, were the main concerns of the Taupo Fishery Area. Although the hearing found in favour of DOC, TrustPower appealed the decision, but in the ensuing discussion the two parties reached agreement. The outcome required TrustPower to adopt a more natural flow regime in the lower river and to ensure effective fish passage for adult trout upstream past the dam and for juveniles back downstream. However rather than

specify exactly how TrustPower would meet the fish passage objectives it made provision for TrustPower to undertake trials to determine the best way to achieve this.

Downstream passage for juvenile trout was resolved when a trial undertaken by DOC for TrustPower revealed that the vast proportion of young fish passing through the turbine as part of the normal operation of the power station survived this apparently hazardous route. This simplified life considerably.

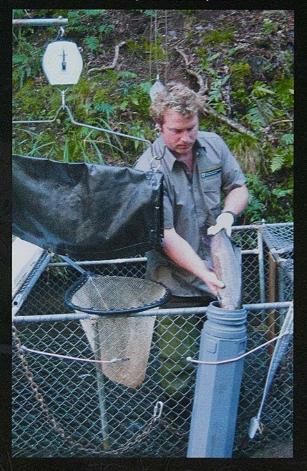
A number of possible solutions to facilitate upstream fish passage were suggested. These options included fish ladders, fish lifts and trapping and transferring fish by hand. TrustPower decided to trial the trap and transfer technique. The benefits of this technique was that it provided certainty as to what fish were actually lifted above the dam whilst avoiding the large capital costs associated with the other options. An agreement was reached that DOC would undertake this trial on contract to TrustPower.

During the first 2 years of operations in 2004 and 2005, the objective of "an average of at least five rainbow trout are transferred for a minimum of forty days during the months of July to October inclusive" (approximately 200 fish) were successfully met. It proved the trap and transfer program worked well

although some operational changes have occurred as a result of what was learnt.

After the first season the trap site was moved upstream nearer the dam. This was because the original trap site was at the downstream end of the bypass channel. While some of the fish trapped were likely to have been spawned upstream of the dam other fish were likely to have been spawned upstream of the dam other fish were likely to have been spawned in the channel itself. When we lifted these fish above the dam some attempted to return back downstream to their parental spawning grounds rather than continue on to the Pahikohuru and Kakapo Streams. Now, by situating the trap immediately below the dam we can be confident the fish being trapped are those attempting to move further upstream.

Callum Bourke places a trout into the transfer tube ready to be carried up to HB lake. Pboto: Rob Hood



During the first year the trap operated for 2 week periods on 4 occasions between the months of June and September. In 2005 the trap operated over 3 periods of up to 38 days. The regular installation and removal of the trap and associated equipment and accommodation proved inefficient and time consuming requiring several staff and vehicles each time. Furthermore the first period of trapping in June, yielded on average only 1 fish per day which was not worth the effort required. Therefore this year, rather than install the trap in June, we will install it in mid-July. The trap will still operate for 8 weeks until mid-September, but over a single continuous period which simplifies the operation and reduces the setup and dismantling costs. It is interesting to note, as with the results from the trapping operations, that escapement counts (drift dives) we have been undertaking in the bypass since 1990 also indicate peak densities of fish occur mid August.

In addition to the trout transferred into the dam, a number of ripe fish will again be stripped to provide 20,000 eggs. As occurred last year, these eggs will be hatched at the Tongariro National Trout Centre and the fry then released into the Pahikohuru and Kakapo streams later in the year. By releasing these fry direct into these streams they should hopefully try to return here as spawning adults in three years time, further stimulating the spawning run. This is the second year we have done this and it will be repeated again in 2007. Given that most trout are three years old when they spawn, stocking the stream with fry for 3 years will hasten the increase in subsequent years.

Next winter will be the first to benefit from the initial transfer. However in 2004 only a very few adult trout found their way into the Pahikohuru and Kakapo Streams and, with no fry release that year, the effect on the spawning run may not be significant. It is likely to take a few years for a noticeable effect to become evident but hopefully at that point the runs will be sufficiently strong that we can look at options to increase the angling opportunity in this special river. Possibilities include closing the upper river later or extending the winter limit further upstream. This opportunity is still a few years off but at this stage the project is progressing well.

TAUPO TAILS

Readers photos and stories



Caught by Richard Knight of Auckland at the Tongarino delta in fan 2006. Just on dank, this brown weighed just under 9 poauds, Photo: Sent in by Brender Knight



Rainbow Jack caught by Margoret Proffit in June this year in Whongamata Bay. Kinloch on a downrigger set at 92 for The rainbow weighed in at 4kgs, and was 67 cm long tolth a glath of 42 cm. Photo: Sent in by Janet Piper.



Got away once but not twice! Photo: Sent in by David of Turangi.



Harley Lowes and Fred Smith from Taradale, trolling out from Acacia Bay early May when the locals ducked in and told Harley and Fred where the fish were. Photo: Sent in by Harley Lowes, Taradale, Napier



As Chris Williams from Cheshire, UK, bad never fished the Tongarino River before, be was not too sure of exactly where he was From his report it appears be booked up in the head of the Kamabi Pool using a stavit manfin gold bead, 5th trade and a six welght rod. This brown took over 30 minutes to land After several falled altempls to land it be found a nice circle of siones some other angler bad kindly left to guide the fish into. After gutting it weighed over 4 kg. Caught in February 2006. Photo: Sent in by Tongariro River Motet



Rainbow trout caught by Nathan Usberwood of Palsiatua, July 2005 Caught at Cabbage tree point at Mornoapa, Lure usect was a traffic Itabl, weight: seven founds, length: 60cm, condition factor: 56. Photo: Sent in by Nathan Usbertroed

If you would like to make contributions to Taupo Tails (letters, photos, anything of interest) please write to Kim Alexander-Turia, Department of Conservation, Taupo Fishery, Private Bag, Turangi or email Kim your contributions to kturia@doc.govt.nz.

New faces in the fishery team

Kim Alexander-Turia

Kim was born in Auckland and with her father in the RNZAF she lived first in Bulls before moving to Hobsonville, Auckland, Of Ngati Tuwha retoa descent K im regularly returned to the fampo area to visit home and of course the whanau.

In Auckland she worked in government for 10 years, primarily as a Customer Service Advisor with the Department of Inland Revenue, before deciding to return home to live in 2001 with her family and two young children Kim began working ar a local flyfishing lodge which is where her passion for fly-fishing began, "I spent so much time listening to the guests about their fly-fishing adventures for the day and seeing their excitement or disappointment on their return that I decided that there was something in this and I had to learn invself As I had a birthday due, I asked all the family for 'fishy' presents and ended up with a the-rod, tackle, waders and of course a licence".

The pressure was on to deliver trout on the table and Kim admits it took a little while to actually deliver. "Fly-fishing is definitely an art and it has taken me a few years to mister some sort of skill" says Kim. After leaving the lodge, Kim worked briefly for the Ministry of Social Development before joining the Tuwharetoa Maori Trust Board where she worked for 3 years in a number of roles but primarily as Personal Assistant to the Board Secretary and Board Chairman.

When the opportunity arose to work for the Taupo Fishery ream "it was too good to pass up as it combined my love of flydishing, the environment and being able to be part of a team that is committed to the sustainability of lake Taupo", says Kim.

Kim's role is Programme Manager, Community Relations and her primary responsibility is to manage the Taupo Fishery Area's advocacy portfolio, media relations and the operation and management of the Tongariro National Trout Centre

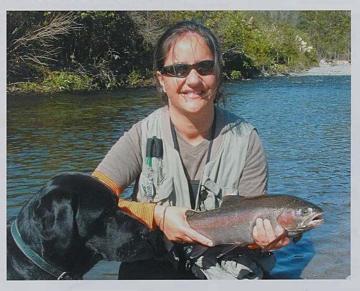




Photo: Kim Alexand e: Turks

Storm Bester

Born and raised in Zimbabwe, I came to New Zealand in November 2004 with my fkancé and son. In Africa I worked in the tourism industry garding overland safaris, filling my time in between doing massage and reflexology in my home town of Bukawayo. I love its hing although I'm not yet very experienced at fly fishing Back home we put woms on our hooks, or swam out in a dam or lake (with hopefully no crocodiles) and went spear fishing, mostly for bream or bass. Sometimes for more of a challenge we chased tiger fish in lake Kariba. I have travelled Africa, Europe and Austral is We finally landed in Turangi in January 2005, and

I have travelled Africa, Europe and Austral in We finally landed in Turangi in January 2005, and love the adventures the area has to offer.) am currently working with the Fishery as a Ranger Service I am undertaking the fishing licence administration and having just received New Zealand residency. I am looking forward to making the department and Turangi my new home.



Iill Welsh

Jill was born in Taupo and grew up in Turangi.
"Over the years I have worked away from the area for short periods but always seemed to be drawn back home" comments Jija.

"Thave come to the Department of Conservation from the Department of Corrections where I spent several years in a crime prevention role I was based in Turangi but worked at most prison sites around New Zealand. This experience developed myskills within the law enforcement environment which is valuable in my new role as Compliance and Law Enforcement Coordinator at DeC".

In her spare time Jill enjoys fishing, boating on the lake and the outdoors in general, 785 a consequence I feel pretty lucky to have the opportunity to work in the Taupo Fishery and with such a great team of dedicated people' says Jill.

Photo:
Kim Alexander-Turia

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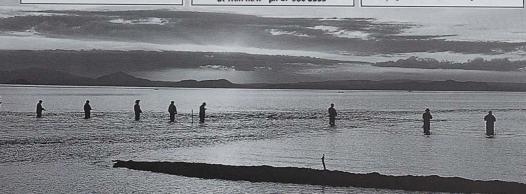
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