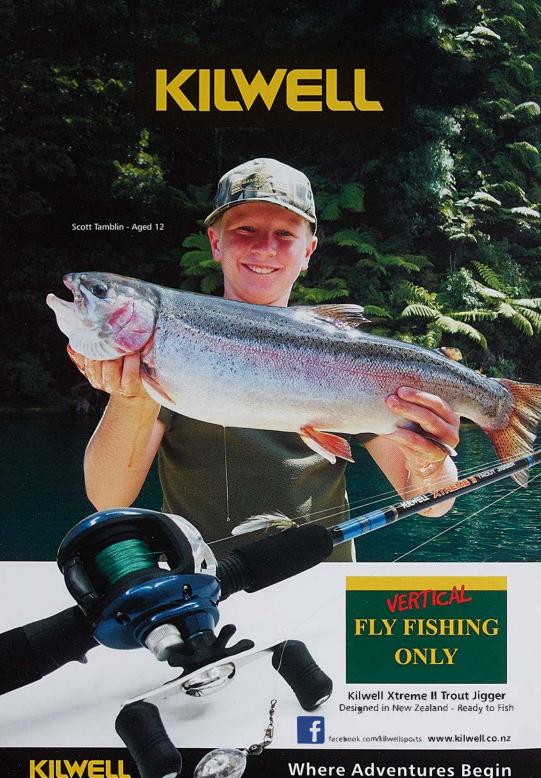
### **TARGET TAUPO**

A Magazine for Taupo Anglers

JANUARY 2012, ISSUE 64







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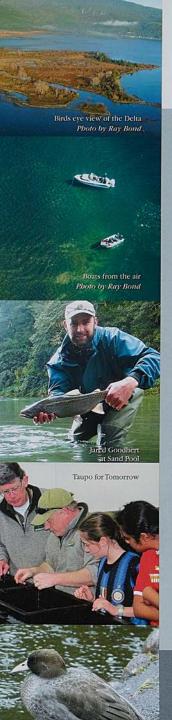
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Front cover: Whimarine Drift Dive, 30 November 2011. Divers: Ray Bond & Mike Hill. Trout counted that day was 368 over a 23km stretch of riversa the end of the spawning our Photos by: Kim Alexander-Turio

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### Target Taupo

A newsletter for Taupo Anglers

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

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### Fishery Forward

By Dave Lumley Area Manager

#### KIA ORA AND WELCOME TO ISSUE 64 OF TARGET TAUPO



Photo by Vanessa Lianley

Once again, it gives my staff and me a sense of achievement in bringing to you another edition of this quality magazine. This edition is jam-packed with stories (all of them true) on a range of topics from my staff involved in hands on management of yourTaupo Sports Fishery. They work hard for the department and you, and they have a sense of pride in their work, which I'm sure you'll agree is reflected in their articles.

We are fortunate also in being able to feature a guest article from Peter Baldwin's good friend Arthur Parish, a local historian. Peter is a member of the Taupo Fishery Advisory Committee (TFAC) and the Tongariro National Trout Centre Society (TNTC).

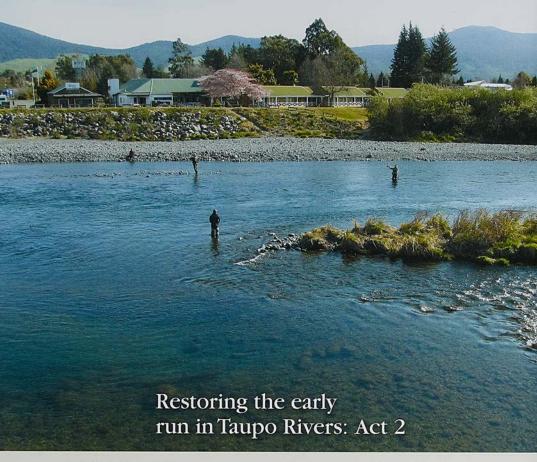
TFAC, along with the Tuwharetoa Maori Trust Board, has a key role in management of the fishery, and this is well explained in Kim's article in this edition. However, TFAC's primary purpose is to represent the views of anglers, and I urge you ro make your views known to this committee.

It is of concern to us that we received only 90 submissions on the public discus sion which we released as the first stage of the review of the Taupo Sports Fishery Management Plan. I urge you to take full advantage of the opportunity to have your say into the future management of your fishery when the draft management plan comes out for public submission in 2012.

In issue 62 I referred to the recently merged Taupo Fishery and Turangi Taupo Areas. Since that time there has been a bigger change merging the Tongariro and Whanganui/Taranaki Conservancies now led by Damian Coutts, Conservator A number of staff will move to the new conservancy office located in Taupo in mid 2012. However the Taupo-nui-a-Tia Area office (the operational division of this Conservancy) will remain at this stage based in Turangi.

TNTC along with Genesis Energy are key partners with the Department of Conservation and together are justifiably proud of the Tongariro National Trout Centre and the Genesis Energy Freshwater Aquarium. The aquarium has taken the visitor attractions at the Trout Centre to a whole new level. However, one of our key founding focuses at the site remains introducing children to fishing This past year more than 2,500 children have caught a trout from the childrens' fishing pond. Volunteers from the TNTCS and staff from the department contribute many hours to this worthwhile cause. However everyone involved, myself included, really enjoys these opportunities to be involved with enthusiastic and happy budding young anglers.

And the fishery for adults? Well again I didn't manage to fish as often on the 'big river' as I had hoped. However, I've certainly found fishing on the lake improved from this time last year, and with my wife look forward to catching, smoking and eating some of those lovely, full of smelt, fat, silver fish which are in abundance now and will be bigger during the Christmas and New Year period.



By Dr Michel Dedual Fishery Scientist

n order to restore the disappearing early rainbow trout spawning run in Taupo rivers it is first necessary to understand why this part of the run is disappearing. It is difficult to ascertain what the exact cause of the decline is as there are likely to be multiple combining causes. The causes of the disappearance of fish or a particular type of fish like the ones running early can be due to angling pressure, competition, predation, degradation of habitat or a combination of these. In this article we will explain some of the issues associated with stocking trout that are relevant to Taupo and identify the unknowns of the program proposed by Glenn Maclean in his article "Restoring the Tongariro

River in the last issue of Target Tampo. We will look at the potential problems associated with stocking and how we can minimize their possible impacts. We will then explain our approach and how could we interpret the results Finally, we will have a general discussion on other components of the fishery that may mask the success of such a project that have to be considered.

Restoration of the early run would require some form of stocking of f.sh programmed to run early Manipulation of fish populations by stocking, however, is one of the most controver sial approaches to lisherics management as there are many risks associated with the practice. In most serious cases the

Top: Winter Anglers at the Bridge Pool Photo by Kim Alexander Furla



consequences of stocking have been shown to contradict the original purpose of the program. Perhaps the best evidence for such an effect comes from a controlled study where populations of salmon were monitored for f.ve years in 15 stocked and 15 unstocked streams. Stocked streams had higher densities of juveniles after stocking, but the number of adults returning to the two types of streams did not differ. Furthermore, spawning success of stocked fish was reduced, causing a lower density of juveniles in the stocked streams than in the unstocked ones one generation later.

Stocking has different justifications. It can be done to enhance, restore, mitigate or to introduce species where they didn't exist previously. The difference between enhancement and restoration can, in our case have some very serious implications for the future management of the Taupo fishery Enhancement stocking is the most common form of stocking and it is often driven by anglers complaining about the state of the fishing, or as a necessity due to a lack of natural spawning and rearing habitat This type of stocking is carried out routinely and is the only management action in many fisheries. On the other hand stocking for restoration is carried out to re establish f.sheries which have previously been eliminated. In the case of the declining Taupo early run fishery we would qualify our project as restoration stocking. However, restoration stocking can also become an enhance ment stocking if it needs to be carried out every year and this is where it will be a very different kettle of fish and commitment indeed. An enhancement stocking in Taupo would mean the end of the "wild" population as we qualified ir until now. Do we want to go there?

While a one-off stocking program destined at rebuilding an early run can be acceptable and justifiable, an enhancement program may not be, from the disappointing level of submissions on the draft review of the Taupo Sports Fishery Management Plan

it appears that Taupo anglers don't really care. This is regretable for the people who have taken the time and who have enough interest in the fishery to make the effort of commenting. However, out of about 10,000 season licence holders contacted only 90 submissions were received. Furthermore, these 90 submissions were split almost equally between those in favour of stocking and those opposed. We now have to consider the opinions of only 0.9% of anglers in making decisions as important as changing the complete management concept and branding of the Taupo Eishery.

As we said earlier, stocking is one of the most controversial practices in fisheries management. The best reason for us to be cautious is that experience worldwide reports that enhancement stockings generally don't work where natural spawning occurs Why? The main reasons are listed below and include genetic, physiological, and ecological factors.

- If production is already limited by food abundance it is unlikely that stocking will have a beneficial long-term effect.
- It may give rise to competition between wild and stocked individuals.
- Stocked fish sourced from outside Taupo may be less well adapted to the local river or lake environment, and stocking may be less successful than expected.
- Hatchery reared and wild trout may interbreed with unknown consequences
- Hatchery fish have a lower overall fitness. Poor performance of hatchery fish, particularly males, in breeding competition with wild fish appears to be an important factor
- Altogether, the evidence available shows that spawning intrusion by domesticated salmonids into wild populations does occur, but also that there is selection acting against domesticated fish.
- It has been hypothesized that stocked trout may exhibit some survival and reproductive success as resident trout,



Tote Aulberg from Notway.

Photo by Mike Hughes

but perform poorly as migratory trout.

Consequently, before embarking on a stocking programme, our main goal must be the preservation of the genetic integrity of indigenous Taupo trout. Problems arise even when stocked fish are of wild origin; it is difficult to point out the precise factors underlying their poor performance. However, non-genetic factors associated with stocking activity, such as timing and location of release. size of the released fish and proportion of released fish in the total population of new recruits, may also be important for the apparent lack of success of released hatchery fish. The long-term ecological effects of stocking are difficult to monitor, because changes in genetic composition and population size tend to occur relatively slowly Another problem is a technical difficulty in developing appropriate controls to evaluate stocking effects. One way to increase understanding of the impacts of recurrent stocking is to

develop a model that explicitly incorporates demographic and genetic processes between wild and hatchery fish. This is exactly the current investigation that we are carrying out in collaboration with Victoria University geneticists.

What can we do to avoid negative ecolog ical effects of stocking? Obviously it is important to select the best brood stock. to use rearing conditions as natural as possible and to use adequate release strict egies. There is a growing body of evidence to suggest that fish should be preconditioned to survive in the prevailing conditions existing in the release locations. For example, fish which have been reared in still water that are destined to be released into a river should be exposed to running water conditions for an extended period before their release. This exercising builds up the red muscle tissue in the stocked f.sh, thus increasing their ability for sustained swimming

There has been much debate over the



most appropriate size or age of fish for stocking. Many of these arguments can be removed by trial and error to assess the success of stocking of different groups Generally fed fry is probably the most effective life history stage to stock as the return rates are greatest. There is a considerable volume of literature on the most appropriate time for releasing stocked frout. The stocking should preferably take place when the productivity of the receiving water is high, but not during the spawning period as the stocked fish may interfere with natural reproduction processes.

Several sources of early running fish could potentially be used to attempt reinstating the early runs in Taupo. For the reasons previously explained by Glenn Maclean, the most convenient source of juvenile fish would be the Lake Otamangakau trout progeny However, we know that Otamangakau trout are slightly different genetically than Taupo fish even though there is probably some movement of Lake Oramangakau fish into Taupo via the Wairehu Canal into Lake Roroaira and then via the Tokaanu tunnel and/or the Poutu Stream, Another source is Rotorua fish as these fish return to spawn from May to July Rotorua and Taupo fish have closely related genetic make-ups as (at least in modern times) Rotorua trout were originated from Taupo. However, Rotorna trout, even if sourced from wild parents, are selected from a small generic pool of fish with particular traits like size. Therefore, through this selection Rotorua trout may have lost some of the traits necessary to do well in Taupo. Despite a very small genetic difference it is possible to pass on "ill adapted" genes into the Taupo population.

So where are we going?

At the moment we have 30,000 fry from Lake Otamangakau being reared in the Trout Centre. These fry are the progeny of 11 females and 11 males, with the ova

of each female being fertilised by at least 3 different males to limit inbreeding. We are also rearing 10,000 slightly larger iuvenile fish from Rotorua stock. When the results of the simulation of the risk are completed we will decide what source of fish is the safest to use. If both sources are safe then we will rear juve nile fish of each origin until they reach about 10 cm. As we have said there are lots of parameters like the size, the timing, and the location of releases that will have to be considered. We cannot solve all of these unknowns in one trial but we can explore the importance of some. This will allow us to refine the methodology as we go. This approach is totally in agreement with the concept of adaptive management that is reconmended worldwide to take care of fish cries.

One of the key aspects of the experimem is the interpretation of the results and particularly at whar srage of return we will be in a position to ascertain if the program is viable as it is, or if we need further action such as full enhancement stocking to reinstate the early run. We mentioned that the decline of the early run may be due to predation or competition. Although predation by eathish, shags, herons, even seaguils has been suggested as the main reason of fish decline, it is unlikely that the decline of the early run is caused by predation of any of these species.

There is another potentially formidable predator that is far more capable of affecting the early run of rainbow trout; brown trout. Brown trout run timing has remained constant and it is of shorter duration than for rainbows, occurring in Taupo between May and July. When the early rainbow run was abundant brown trout that spawn the first had competition for spawning grounds as early rainbow were spawning on top of brown trout redds and scouring them out. Now with a severely restricted run of early rainbows, browns no longer





Hinenziaki double Act Photo by Mark Venman

have that competition and they can realize their full spawning potential. As a consequence brown fry will be first to occupy the good territories, they'll grow best and will be bigger by the time the first rainbow fry emerge. Juvenile rainbow will be facing severe competition with the larger juvenile brown trout fiercely protecting their territories. That will leave very little choice for rainbows who will have to move downstream toward the lake to find some unoccupied territory. However, this move will be a dangerous one. If juvenile rainbow stop in the lower fongariro they will have to face and escape a formidable armada of very effective hunting hungry large brown trout. If they reach the lake alive then they will have to find smelt if they are large enough to catch them or they will have to find zooplankton quickly and compete with smelt. If there is no zooplankton then the loss will become even greater. There is no doubt that the presence of brown trout in the system makes the rainbows' life much more dangerous. Our best evidence of the competition between juvenile brown and rainbow in streams is the results of our juvenile trapping that shows that in the Waipa and Whitikau streams juvenile brown trout are now far more abundant and larger than juvenile rainbow.

The initial results of our investigation of stable isotopes indicate that brown trout have an isotopic signature that is very close to juvenile rainbow trout. This suggests that adult brown trout are probably preving upon juvenile rainbow. It is difficult to precisely estimate how many juvenile rainbow could be taken by brown trout. However, we can make the following calculation. During summer with water temperatures of 14-16°C, when juvenile rainbow are abundant in the streams a 3kg brown trout feeding on fish needs on average about 120 and 360g of food per day, If it was relying entirely on 8 to 10 cm long rainbow trout having an average weight of about 10 grams,

each brown trout would need to eat between 12 and 36 juveniles per day. The population of browns passing through Waipa is around 350. Let's assume that these fish rely solely on juvenile rainbow then a whopping 4,200 to 12,600 juvenile rainbow would be eaten daily by adult browns. At this rate the entire population of rainbows could be annihilated. The disappearance of rainbow trout in some fisheries of the South Island, where historically they were predominant, and their replacement by brown trout has also been reported. Furthermore, brown trout have been responsible for the disappearance of other salmonids species in North America and in Japan, mainly by preda tion. A similar concern about the poten tial impact of brown trout on the rainbow fishery also prompted Rotorua managers to embark on a systematic culling program

of all brown trout running through the Ngongotaha Stream trap. The program was successful at virtually removing the entire population of browns in the system. However, for some unexplained reasons this wasn't accompanied by an increase in the rainbow trout population. Nevertheless we have to consider brown trout competition and predation to see first if the concept of stocking rainbow juveniles selected from early-numning fish is a viable option. First we will look at the survival of larger fish, as brown trout will be less likely to prey on rainbow greater than 10 cm long. Iuvenile rainbows at this size will have a better chance of survival in the lake as they are fast enough to prey on smelt or bullies. In addition we would split the fish in rwo groups. One group would be released in the lake and another in the upper Tongariro. Waipa Stream and



Whitikau Stream above the Grotto, To identify the groups we planto use fluorescent elastomer that is injected under the skin. Then the monitoring of the marked fish going through the trap, detected in anglers bags and escapement counts during the early season in the Whitikau from each group will help to identify the best release location. If the best loca tion is the lake it would mean that life for juvenile rainbow trout is tougher in rivers. This observation would in turn points to the brown trout as the culprits. However, it will also mean that restoration stocking will be successful only if done on a routine basis and thus, becoming an enhancement stocking with all the risks that entails. Another monitoring tool is electric fishing in the streams where rain bows were released to see if they stayed there or if they get displaced by wild fish. It will be particularly interesting to compare the Whitikau where the brown trout population upstream of the Grotto is very limited, with the Waipa Stream where the population of juvenile brown trout is abundant Next year we plan to use juvenile from the same origin(s) but releasing them at a smaller size. The following year we would trial releasing

fish at different times of the year During that third year we should get some recovcries of adult fish from the first year's releases In light of these results we will refine the experiment further.

You may ask why not start by controlling brown trout? The reality is that brown trout could be efficiently controlled only in the Waipa and in the Mangamawhivvhiti streams as they return to spawn. In the other rivers they would be extremely difficult to control; it takes a skilful angler to catch brown trout consistently in the Tongariro. If this first step is working then we will refine the experiment by releasing f sh of an even smaller size. If it doesn't work with small fish then we have a good indication that brown trout may well be the problem. We will then have to consider measures to limit the population of brown trout if we want to restore a self sustainable run of early rainbows in Taupo but particularly in the Tongariro catchment. But this is music for the future and let's embark on the first leg of this exciting experiment. In the mean time happy brown fishing ...

Mike Hughes with a huge Tongacito brown Photo by Catherine Midul





### Taupo Fishery Harvest Survey Results

By Mark Venman Fishery Operations Manager

Top: Local pilot Chris Blyth
from Jauso Air Services, Ray
Bond and Dave Lumley with
the Piper PA-18 Supercub
used for the harvest survey
aerial counts,
Photoby
Kim Mexander Turia

his intensive year-long survey has been completed every 5 years since season 1990/91 using a stratified random sampling approach and direct field measurement of angling effort and catch. Aerial counts of anglers were used to estimate the daily angling effort and anglers were interviewed at the boat ramps to determine their fishing success on the survey day. Catch rates are an estimate of success rate and are normally expressed as the number of legal sized fish caught per hour of angling effort. Harvest rates refer to the number of legal sized fish caught and killed per hour of angling effort. The catch rate is normally higher than the harvest rate as not all legal sized fish

caught are actually killed. For example, anglers are likely to return a f.sh that is spent after spawning due to its poor condition despite it being over the legal limit of 40cm.

This article focuses on the preliminary results from the Lake Taupo f shery first, which in brief indicate that anglers overall made 124.628 trips, fished for almost 317,000 hours and caught approximately 85,700 legal sized trout. It then examines the river harvest results in more depth before then focusing on wrapping up the entire harvest for the fishery as a whole

History of the survey
During the early years of the Taupo



Figure 1, isstances of effort on Take Taupo over the last 20 years and the total number of fishing licences sold during these harvest survey years.

fishery, the size of the trout population was thought to be so huge that the overdi catch by anglers would be relatively insignificant. Managers at the time used a combination of angler diaries, intuitive estimates and field checks to estimate the number of fish removed by anglers across the fishery. These estimates of the annual harvest varied considerably from 440 to 1,200 tonnes.

In the late 1980's, the fishery went through a well publicised decline. Estimates of the annual production of trout at the time ranged from 340 to 540 tonnes but were clearly incompat ible with the incredibly high estimates of harvest across the fshery. The importance of being able to accurately esti mate the harvest then became a priority for fishery managers and so the yearlong harvest survey commenced during season 1990/91 and has been repeated during seasons 1995/96, 2000/01. 2005/06 and finally again in 2010/11. Harvest surveys commence in July and run through until the following June. Given the logistics and the cost of such surveys, they are only undertaken once every 5 years.

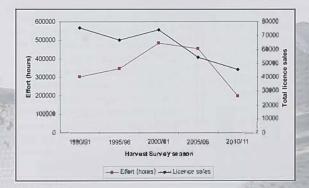
The results from the initial survey in 1990/91 estimated the annual harvest to be 113,000 trout or approximately 175 tonnes. This was much more consistent with the previous estimates of annual trout production, although a very large proportion of the trout being produced

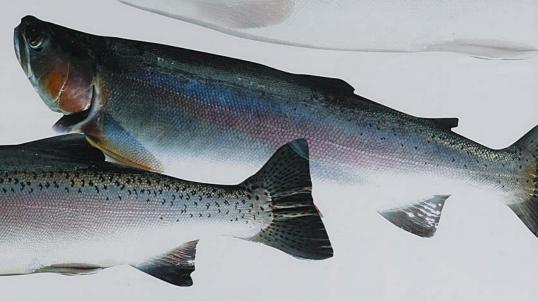
were actually being caught and killed. It then became apparent that the harvest was having a major effect on the quality of the fishery and so the bag limit was reduced from 8 fish per day to 3 trout in December 1990. Knowing then that the harvest of trout could be critical, managers embarked on conducting these surveys on a more regular basis.

#### Lake Taupo Results

The combined harvest (fish caught and kept) for anglers on Lake Taupo (guided & non-guided) during season 2010/11 was estimated at 40,415 trout, with non-guided anglers accounting for 86% (34,738 trout) of the total, Given that a good number of trout are caught and released, overall, anglers caught a total of 53,876 legal sized trout with nonguided anglers also accounting for 86% of the total lake catch. An estimated total of 196.812 hours were spent f.shing on the lake with non-guided anglers accounting for 90.1% of the total effort. The maximum daily effort recorded by anglers trolling and jigging on Lake Taupo (guided & non-guided) was an estimated 4,192 hours on 3 January 2011. The maximum number of boats fishing on the lake in a single count was 228 (guided and non-guided boats) also on 3 January 2011 between the hours of 7am and 8am. The maximum daily catch was an estimated 913 legal-sized trout caught on 23 April 2011 (Easter Saturday). Similarly, the maximum daily harvest of 683 trout was also recorded on this day during Easter weekend.

Anglers anchored up and fishing at the Tongariro River Delta were kept separate from other lake anglers for the purposes of this survey. Delta anglers accounted for a further catch of 2,446 legal sized trout of which 1,392 were harvested. Overall, anglers spent a total of 7,280 hours fishing at the Delta and accounted for 3,309 angler visits during the year long survey.





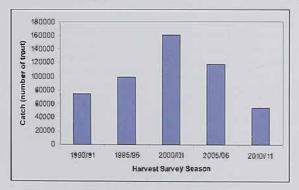
The totals for the lake fishery do not include any estimates for the lake edge fishery which hasn't been measured ever the last two harvest surveys 1500 we assume that the lake shore fishery accounts for 12% of the total lake effort (using data from 2000/01 survey) then this equates to an effort of 27,835 hours or a total lake effort of 231,927 hours (guided boats, non guided boats, Delta anglers and shore based anglers). If we also assume that the lake edge fishery represents 7.4% of the total lake catch (2000/2001 data) then this produces a lake edge catch of 4,501 trout or a total lake catch of 60,823 trout. Assurning that the lake edge harvest equates to 5.5% of

the total lake harvest then this produces a lake edge harvest of 2,434 trout or a total lake harvest of 44,241 trout

The total boat fishing effort on Lake Taupo (trolling and jigging & guided/non guided combined) was estimated at 196.812 hours which was the lowest recorded effort out of the 5 harvest surveys completed (Fig.1). However, when the total number of licences is also plotted for these 5 survey years then it is no supprise that the effort has decreased similarly over the years.

The catch of legal sized trout on Take Taupo this season was estimated at 53,876 f.sh and was the lowest recorded catch out of the 5 surveys completed (3:ig.2). This reduction is expected though when combined with decreasing licence sales and anglers spending less time actually fishing. In addition to the catch of legal sized trout, a number of trout less than the minimum legal length of 40cm were also caught. Estimates for this season suggest a further 47,636 undersized trout were caught by non guided anglers, 6,729 trout by guided anglers and a further 891 by Delta anglers resulting in a total catch and release of 55.256 undersized trout.

Figure 2, Estimates of catch on Iake Taupo over the lust 20 years



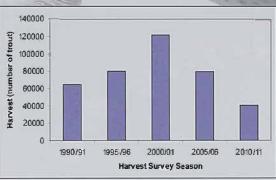


Figure 3. Estimates of harvest (trout killed) on take Taupo during the last 5 harvest survey seasons.

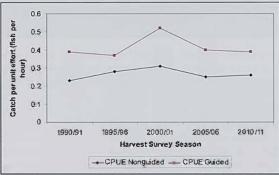


Figure 4. Catch rates on Take Taupo duting the last 5 harvest surveys for non-Suide of & guided anglers.

A similar trend was observed with the harvest (Fig.3) which was estimated at 40.415 trout and was down on the harvest estimated for previous surveys but in line with the actual effort spent fishing this season and the lower overall catch.

The overall catch rate for non guided anglers during the 2010/11 season was 0.26 fish per hour in fish every 3 hours & 50 minutes) which is on par with the 5-season average. Guided anglers were more successful with an estimated overall catch rate of 0.39 fish per hour (1 fish every 2 hours 34 minutes) which was just under the 5-season average of 0.41 fish per hour. The peak in catch rates for non-guided & guided anglers occurred during season 2000/01 with estimated overall catch rates of 0.31 & 0.52 fish per hour, respectively (Fig4).

Outside of the peak season, the catch races for both sets of anglers have remained relatively stable. The 2000/01 season marked a peak in production and so the higher catch rates essentially reflect that there were more trout to be caught.

The first harvest survey in 1990/91 coincided with a low point in the productivity of the Taupo fishery while the 2000/01 season was acknowledged as a peak year. As the fishery rebounded over this ten year period, the catch and harvest rates increased as expected. Increased catch and harvest rates are not a problem when there are more fish available to be caught as occurred in season 2000/01. However, increased catch & harvest rates during a period of low productivity could result in an overharvest of the trout population as the catches exceed what is sustain able. Since season 2000/01, the catch and harvest has decreased but so too has the effort expended by anglers on the lake. With fewer licences being sold during more recent years, fewer anglers are coming here to fish and so the effort has been reduced.

It has been well documented that Lake Taupo didn't fully mix during the winter of 2005 which basically resulted in a shortage of nutrients that ultimately caused smelt numbers to decline through a lack of available food. When combined with a large influx of juvenile fish into the system in 2005 after a very productive season, fish that were already in the lake soon began to struggle due to the shortage of smelt. The size and condition of the trout in the lake decreased in the seasons after this to another low point around 2007/08. Maiden tish were small and lean and not in great condition. Since then, the fish are still on the small side but the condition has improved considerably and there certainly appears to be a lot more smelt. around at present, it is likely that this decline in the fishery hasn't helped with the sales of fishing licences and when



Counting boats from the air
Photo by Rep Bond

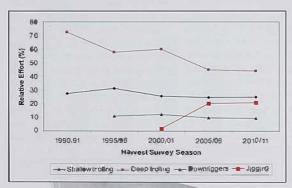
combined with a struggling economy it isn't surprising to see a reduction in the amount of Eishing done on the lake during season 2010/11 when compared with the earlier years.

Since the surveys began, two new deep fishing methods have been adopted by anglers - downrigging & jigging Trolling with lead lines (1-10+ colours) or wire lines has been and still is the preferred method of fishing on Lake Taupo and this season accounted for 69.1% of the total effort for non guided anglers (Fig.5) and 63.5% of the total lake harvest (Fig.6). The use of deep trolling methods (>3 colours of lead line) and wire lines has essentially decreased in popularity from 72.5% in season 1990/91 1 44.1% in

2010/11 as anglers have favoured the newer and more sporting methods.

Jigging in particular, has seen an increase in popularity since the 2000/01 season and peaked this season at 21% of the total non-guided effort and accounted for 23.5% of the non-guided harvest. This is on par with the data from 5 years ago and so jigging still accounts for approximately one fifth of the total effort and a quarter of the total harvest by nonguided anglers. Interestingly, shallow trolling (or harling) has remained relatively stable in terms of effort expended by anglers over the past 20 years. Perhaps this is related to its high success rates at either end of the day especially during summer months or due to the sporting light that lish put up on less than 3 colours of lead line. Nevertheless, shallow trolling still accoums for a quarter of the total lake effort and one fifth of the total harvest amongst nonguided lake anglers. Downriggers are now much more readily available in New Zealand but still only account for 9.5% of the total effort and 12.7% of the total harvest amongst non-guided anglers on Lake Taupo. Perhaps the initial outlay of purchasing a downrigger is still a limiting factor for the majority

Figure 5. Relative use (% of total hours of effort), of different fishing methods for non-guided anglers on take Tau po. 1990/91, 1995/96, 2000/01, 2005/06 & 2010/11.



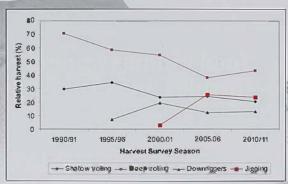


Figure 6. Relative Incress (% of total harvest) of different fishing methods for non-guided anglers on Lake Taupo, 1990/91, 1995/96, 2000, 01, 2005/06 & 2010/11.

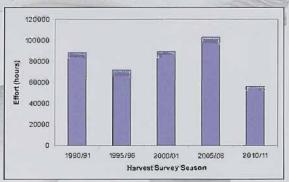


Figure 7. Estimated effort (hours) on the Tongarin River during seasons 1990/91, 1995/96, 2000/01, 2005/06 & 2010/11

of non-guided anglers on the lake? The use of downrigger's peaked during season 2000/01 at 12.3% of the effort and 19.2% of the harvest. During the last two surveys, the effort for downriggers has been approximately 9.5-10% and the harvest has been approximately 12% of the total harvest recorded for non-guided anglers. It is predicted that this decreasing trend in the use of lead and wire lines will continue as anglers move

to using lighter gear and adopting newer methods to fish for trout on the lake.

Anglers from Turangi and Taupo accounted for 34.7% of all non-guided anglers on Lake Taupo (Table 1). Auckland (4.9%) and Wellington (14.5%) anglers accounted for a combined total of 19.4%. Overseas anglers accounted for 2.4% of all anglers interviewed with the largest percentage coming from Australia (1.2%) during season 2010/11. Interestingly, the percentage of anglers from Auckland has decreased over the 20 year period from 11.6% in 1990/91 to 4.9% in 2010/11. Anglers from Wellington have tended to increase slightly over the same period from 10.7% to 14.5% as have the percentages of local anglers from Taupo and Turangi. A noticeable decrease has been observed in the percentage of overseas anglers using the lake fishery which has dropped from approximately 8% to 2.4% over the 20 year period.

#### River Harvest Results

In order to reduce costs (mainly those associated with flying), a decision was made not to survey the early part of the winter fishing season and focus on the peak and late season surveys. If we assume that the missing survey days account tor 24.6% of the total effort (2005/06 survey data) then these early season days add another 13,800 hours to produce a total effort on the Tongatiro of 56,095 hours (Fig.7). If we also assume that the earch for this early period equates to 11% of the total Tongariro catch then this adds an additional 1,727 trout to give a total

Table 1. Residence of non-
guided anglers fishing take
Taupo (% of interviews)
1990/91, 1995/96.2000/01,
2005/06 & 2010/11.

Residence	1990/91	1995/96	2000/01	2005/06	2010/11
Auckland	11.6	10.8	8.3	8.2	4.9
Wellington	10.7	11	11.2	14.1	14.5
Turangi	4.9	8.6	5.1	7.8	12.3
Taupo	15.9	14.6	21.9	18.2	22.4
NZ visitor	71.6	68.6	70.6	72	62.9
Overseas	7.6	8.2	2.4	2	2.4

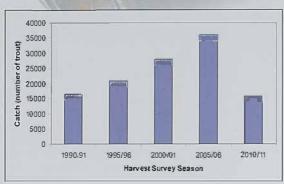


Figure 8, Estimated eatch (number of trout) on the Tongariro River during seasons 1990/91, 1995/96, 2000/01, 2005/06 & 2010/11

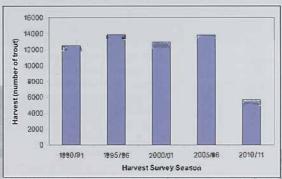


Figure 9. Estimated harvest (number of trout) on the Tongarito River during seasons 1990/91, 1995/96, 2000/01, 2005/06 & 2010/11

Tongariro River catch of 15,695 (Fig.8). Similarly, if we presume that these 3 early season strata accoum for 11.7% of the Tongariro harvest then this equates to an additional 666 trout, or a total Tongariro River harvest of 5,692 (Fig.9). Consistent with the lower effort measured across the lake fishery, there was also a reduction in the amount of

effort measured across the Tongariro River fishery. The effort during 2010/11 was the lowest recorded and considerably lower than the peak of 102, 784 hours recorded in season 2005/06 and the 5 season average. Similarly, the catch was also lower than recent surveys and well below the season average but was on par with the low catch made during 1990/9 I. However, the harvest for the Tongariro River during season 2010/11 was the lowest by far on just 5,692 trout and also well below the season average. The percentage of fish harvested by anglers on the Tongariro River has decreased from a peak of 75.5% in 1990/91 to a low of 36.3% in 2010/11. Anglers are clearly releasing more of their catch than 20 years ago and this could be due to a number of different factors. Anglers might favour keeping larger lish and so return those smaller fish caught that are just over the legal limit in the hope of landing a larger one soon after Catch and release has gener ally become more popular over the years too and so perhaps this change in angling behaviour has attributed to this drop in harvest. A reduction in fish size and quality especially during 2007/08 may also be a factor with anglers now being considerably fussier about the fish that they choose to keep for the table.

The greatest number of anglers counted on the Tongariro River occurred on 22 August 2010 when 82 anglers were counted. The maximum daily catch of 318 trout and harvest of 110 trout occurred one week later on 28 August.

The breakdown of angling effort, catch,

Method	Effort (hours)	Catch (number of trout)	Harvest (number of frout)	Catch rate (fish per hour)	
Nymph (fleating line)	34215	11902	3560	0.35	
Wetfly (sinking line)	Wetfly 8080		1466	0.26	
Tetal	42295	13968	5026		
%Nymph fishing	8 0. 1	85.2	70.8		

Table 2. Angling effort, each, hurvest & catch rate by method for the Tongariro River 2010/11.



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Pilot Chris Blyth
Photo by Ray Bond

harvest and catch rate by method for the Tongariro River is shown in Table 2 (excludes the 3 early season strata where no data was collected).

On the Tongariro River, nymph lishing with a floating line continues to be the most popular method, probably because it is generally more successful (Table 3). Anglers nymphing had an overall estimated catch rate of 0.35 fish per hour (1 fish every 2 hours 51 minutes) compared to the wet liners on 0.26 fish per hour (1 fish every 3 hours 51 minutes). Despite a slight swing back to the more traditional downstream wet fly fishing technique in 2000/01, this was only short lived as nymph fishing during 2010/11 accounted for 80.1% of the effort, 85% of the catch

and 70.8% of the total estimated Tongariro harvest. These figures were very similar to seasons 1995/96 & 2005/06.

The next most visited river was the Tauranga-Taupo, which also wasn't surveyed during the early part of the season. If we use percentages of effort, eatch and harvest from the 2005/06 survey to calculate estimates for the early part of the season then the total effort, eatch & harvest for the Tauranga-Taupo during 2010/11 was 14,013 hours,4,882 trout & 1,618 trout, respectively.

Of interest was the third most popular ever, the Hinemaiaia. This is the result of the opening up of approximately 2.75 kilometres of fishable water upstream of the old limit at the SH1 road bridge

Table 3. The relative use and catch by upstream nymph anglers and downstream weight anglers in the Tongario River 1990/91, 1995/96. 2000/01. 2005/06 & 2010/11 seasons

	1990	)/91	1995	5/96	2000	0/01	2005	5/06	2010	)/11
Method	Effort	Catch								
Nymph	57%	68.9%	79.7%	84.3%	67.6%	76.9%	79%	85.5%	80.1%	85.2%
Wet fly	43%	31.1%	20.3%	15.7%	32.4%	23.1%	21%	14.5%	19.9%	14.8%

	Number of trout	Average weight (kg)	Harvest (tonnes)
Lake Taupo	44,241	1.08	47.8
Rivers	10,110	1.3	13.1
Total	54,351		60.9

Table 4. Calculation of the total tonnage of troot harvested from LakeTaupo and the surrounding rivers during season 2010/11 during 2010 and this proved popular with anglers over the winter months. This idea originally came about through input from anglers, clubs and the Taupo Fishery Advisory Committee who had all requested that we opened up more of the Hinemaiaia River to angling over the winter months as fishable water below the SH1 Bridge was limited Traditionally, the Waitahanui was the third most popular choice for anglers but it now resides fourth in terms of total river effort.

### Calculation of the total tonnage of fish harvested

Although lake-caught trout were not measured by staff during the harvest surveys to minimise the disruptions to anglers at the busy boat ramps, we still obtain trout lengths and weights throughout the season from fishing competition data sent in as part of the competition permir conditions. Anglers surveyed on the rivers did have their eatch weighed and so an average was taken of these fish to help calculate the total tonnage of trout harvested. Average weights were calculated for the rainbow

trout caught and killed by anglers during the 2010/11 season and lake caught rainbows averaged 1.08kg while rivercaught rainbows averaged 1.3kg.

If we add the combined harvest from Lake Taupo to the total harvest from Delta anglers and the estimated total harvest by lake edge anglers (2,434 trout) then we obtain a total lake Taupo harvest of 44,241 trout. When this is multiplied by the average weight for each f sh of 1,08kg then the total harvest is estimated to be 47.8 tonnes (Table 4). Similarly, if the total adjusted harvest from the Tongariro, Tauranga-Taupo, Hinemaiaia, Waitahanui, Waimarino and Waiotaka is combined then the total harvest from the rivers equates to 10,110 trout or 13,1 tonnes.

Given the low effort and catch during the 2010/11 season compared with previous surveys, a low harvest of just under 61 tonnes is to be expected and at this stage the low level of harvest is not of concern (Fig.10). In the 2005/06 survey, 88.330 trout were killed on Lake Taupo resulting in an estimated harvest of 132.5 tonnes (at the then average

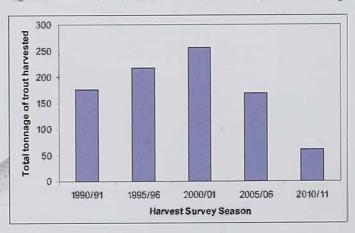


Figure 10. Yoral tomage of trout harvested from Lake Empo and the surrounding rivers during the previous 5 harvest surveys.



Claire Melvio with a
7lb rainbow caught at
the Horomatangi reef in
November, her itest ever fish
on (ake Taupo!
Photo by Ann Tauponen

weight of 1.5kg). The latest harvest is half what was recorded during 2005/06 but the hours spent fishing during 2005/06 was more than double what was recorded in 2010/11 and so essentially half the effort produced half the catch. Similarly on the rivers, half the number of trout were caught during season 2010/11 than 2005/06 but again the effort was essentially half of what it was 5 years ago.

The percentage of legal size fish harvested on the Tongariro River since season 1990/91 has steadily declined from 75.5% 20 years ago to 36.3% during season 2010/11. This could be c to a number of factors including the reduction in the size and quality of fish during more recent years and the timing of the spawning runs becoming much later. A similar pattern was observed on lake Taupo with the percentage of fish harvested declining from 86.6% to 67.3% between seasons 1990/91 & 2005/06. A small increase to 75% was observed during season 2010/11 and is perhaps

attributed to the reduction in the size limit from 45 to 40cm during this period while the daily bag limit of 3 fish per day remained unchanged. However, with a combination of lower estimates of effort and a decrease in licence sides then this slight increase in harvest is unlikely to be a cause for concern at this stage.

One area of concern still is the relatively high incidence of undersized fish amongst the catch. On lake Taupo alone, it was estimated that a further 55,256 undersized trout were caught and released by anglers. This alone is more sthan the number of legal-sized trout harvested from the lake during the same period. If these fish are not released correctly and subsequently die, then in a worst case scenario the harvest could be double what was actually estimated. With large numbers of small fish still accounting for a significant proportion of the catch made by lake anglers, then it might be worth reviewing the size limit once again. Some reduction in the size limit could be considered.





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Three beautiful rainbows caught during the harvest survey Photo by John Toogood

A further reduction to say 35cm would allow many of these small fish to be harvested especially within the lake system but with these fish being maiden fish growing over the summer months and running the rivers the following winter/spring, we need to ensure that an increase in the harvest of these fish would be sustainable to ensure sufficient numbers survive to maturity. See Appendix I. In light of the current Taupo Sports Fishery Management Plan review, it is timely to review the size limit. The current size limit may not be the most appropriate given the changes in spaying patterns and the high incidence of undersized fish caught over summer in particular. See Appendix 2. Overall, these results will further increase our knowledge and under-

standing of the effort, eatch and harvest

of trout across the entire fishery and subsequently our ability to manage it. The Taupo fishery has clearly changed over the last 20 years with average sizes decreasing over time and the spawning runs getting much later, in particular. With the TSFMP currently under review it is timely to look at the lishery and how we need to manage it to get the most out of it.

Thanks to everyone who participated in the survey especially those anglers that took the time to pass on their angling data to the rangers and of course the charter boat operators who meticulously recorded their catch throughout the season. With summer well underway and some nicer fish around this year, make the most of the reduced competition and get out there fishing as it is shaping up to be a good season!

### Waiotaka Re-plants

By Kim Alexander-Turia Programme Manager Community Relations



Helping plant trees are hapu member Irinangi Timu & Lawric Domild of WRC. Photoby Kim Alexander-Turia

s reported in Target Taupo 59 and 61 sone are the Waiotaka River willows which were over-hanging and crowding in on each bank; gone too are the dead trees lying in the stream and the impassable blackberry thickets.

This work was an impressive initiative started by Ngati Rongomai hapu to protext their matte downstream from the ford from flooding and also an important fishing stream for anglers. In partnership with the Department of Conservation, Waikate Regional Council and the Department of Corrections as the neighbour upstream, everyone was keen to see an effective solution. Funding was secured and the work began in March 2009. Back then after the works were completed it did indeed look very bare. The fertile river banks quickly recovered and it was time to replant. In November 2010 Ngati Rongomai hapu. Te Kura Kaupapa Maori Ki Tuwharetoa, Department of Conservation and Waikate Regional Council again banded together to plant the true-left bank of the clearted area The partnership group meets regularly and its main aims are:

· Removal of willows in the Wajotaka catchment from the headwaters to the lake.

- · Mitigate the effects of flooding at the Ngati Rongomai marae and State Highway One.
- ·Improve the fishery values through restoration of river dimensions, flows and sediment loads to natural levels.

With the first stage completed and funding monies spent it was time to look at securing further funding to continue the aims of the group. The Waikato Catchment Ecological Enhancement Trust (WCEEI) was approached WCEEI assists organisations, agencies and individuals with projects than foster and enhance the sustainable management of ecological resources in the Lake Taupo and Waikato River catchmems. Ngati Rongomai to their delight were successful in receiving further funding to fence/stock-proof, continue restoration planting and poison the remaining willows.

Planting on the true-right bank and funcing to protect the planted area was completed in October 2011. Members of the hapu and staff from DOC and Waikato Regional Council completed this next stage of planning.

Below the ford, river blockages from willow infestation causing flooding of the adjacent farm land prompted the regional council to clear the river from the ford to for this area.





### Keeping up with Blue Duck

WHIO CHICKS CRUISING THE TONGARIRO RIVER

By Anna McKnight Community Relations Ranger he Department of Conservation and the Blue Duck Charitable Trust are proud to announce the arrival of four broods of blue duck / whio ducklings on the Tongariro River The whio families home bases are at the Blue Pool, Boulder Reach, the Red Hut Pool and the Hydro Pool.

If you wish to visit these ducklings please

move slowly and carefully. Please have your clogs under control. It would be ideal to walk dogs on a leash during the breeding season. Whio nest for just over a month with most ducklings appearing in October and November, though some may hatch up until Christmas. The female and ducklings are most vulner able during this time, and the female





may abandon her nest if frightened by dogs, predators or people.

Broadlands School students watched the whio ducklings playing in the water from the Major Jones Bridge. This was exciting to see the birds after having been studying "Fantastic Whio" for a full day at the Taupo for Tomorrow classroom, just down the river at the Tongariro National Trout Centre.

The extensive predator trapping along the Tongariro River has contributed to the whio breeding success. Volunteers from the Blue Duck Charitable Trust are busy checking predator traps along the Tongariro River to catch rats and stoats to give these youngsters a fair go. Rats and stoats eat bird eggs, and stoats will prey upon young ducklings.

The arrival and survival of these endangered whio ducklings in our local rivers is important. It is a pleasure watching the ducklings take to their first white water rafting expeditions right at our back door.

rents

Top right: Whio parents writches over young ducklings taken in the major Jones Bridge Physio by Bubs Smith

Above: Whio family River Shot Photo by Bubs Smith

Bottom right, frophy Stoal

Nick Singers checking his
traps along the Tongariro.

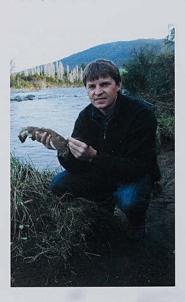
Photo by dama McKnight

#### Whio feel the love

A \$2.5 million business partnership was signed between the Department of Conservation and Genesis Energy in September to help secure the future of the rare whio.

The Genesis Energy whito recovery programme partnership will find a five year management programme for whito. The aim istodouble the number of secure whito breeding sites across the country.

Mark March in your calendars as whio awareness month. We will celebrate the launch of the whio recovery plan, and Whio Family Day will be on again at the Tongariro National Trout Centre on Saturday the 10th of March.





### Taupo Sports fishery Management Plan Update

By John Webb John was previously Ranger, Community Relations s reported in Target Taupo 61, the Taupo Sports Fishery Management Plan (TSEMP) is currently under review, a task required to be completed by the Department of Conservation every 10 years.

In early June 2011 a discussion document asking 8 key questions about the Taupo fishery was released into the public arena. The purpose of this document was to encourage discussion and invite feedback from anglers, key stakeholders and the public about the Taupo fishery and highlight some potential changes in future manage ment directions for the plan. Indeed some of the questions posed a significant shift or change of direction in management from the current TSFMP and it is important to canvass the opinions of Taupo fishery stakeholders before incorporating these changes into the reviewed draft.

The consultation was primarily an electronic one, utilising the "Consultations" section of the DOC website and local community websites (Sporting Life Turangi and Tongarito River Motel) as a consultation platform. In addition to this all anglets registered on the larget Taupo database were sent an electronic copy of the discussion document and asked to respond. The discussion document was also developed in conjunction with and disseminated through the Taupo Fishery Advisory Committee (TFAC) and Tuwharetoa Maori Trust Board (TMTB) This allowed distribution of the document Jocally through Iwi, interested clubs, groups and community organisations.

#### RESULTS

It was disappointing that there were only 90 responses that directly addressed any or all of the discussion document questions. There were a further 15 general responses that provided general comments or opinions about the Taupo fishery. For those respondents that either chose not to comment on a particular question or didn't answer the question directly, they were recorded as NO (No Opinion). Some respondents did give a dependent answer, i.e. it depends on this or that Although technically these are a NO, often they provided very constructive comment about the fishery, which was useful to capture, and were therefore separated into their own category of D (Depends).

The results for individual questions are as follows:

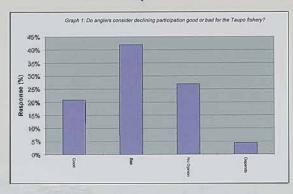
Top: A great way
to end the (ta)!
Photo by Dave Conle):

#### PARTA: INCREASED PARTICIPATION

#### **QUESTION 1**

Graph.1

Do anglers consider declining participation good or bad for the Taupo lishery? Why?



The percentage responses for good, bad, no opinion and depends are given in Appendix 2, Graph 1.

The largest response was that declining participation was bad (42%) although a significant proportion, 29%, thought it was good. The most consistent comments from those that thought it was bad included:

- It means declining revenue to manage the fishery:
- It means declining income for local businesses.

For those respondents that thought it was good the main comments included:

- · Crowding was a problem and declining participation would alleviate this
- Declining participation would help to protect the f.sh and some specificallymentioned protection of the early autumn run.

#### **QUESTION 2**

Should the TSFMP provide more impetus for the recruitment of anglers, particularly children, to the Taupo fishery or the sport of angling in general? Are there any suggestions about how this might be achieved?

The percentage responses are given in Appendix 2, Graph 2.

Gmph2

Graph 2: Should the TREARPROVISE man impetor for the recultiment of that preference by the result of the recultiment of the rec

At 51% the largest response was agreement that the TSEMP should provide impetus

for recruitment although a significant

proportion, 33%, disagreed. The most

consistent comments from those who agreed included:

• Recruitment is important but is shouldn't come at the cost of core functions

- Recruitment of children and families is important.
- Many of the department's current advocacy and education programmes (particularly those at Tongariro National Trout Centre) are very good.

For those respondents that disagreed their comments included:

- · Recruitment would look after itself if the fishery was producing well.
- · It was the responsibility of parents to introduce children to the sport.
- · Concerns were expressed by some about funding recruitment drives.

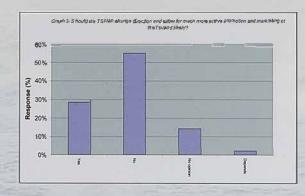
There was also a number of interesting suggestions for this question about how more

recruitment could be achieved. These included:

- · Introducing a family licence
- Use social networking media to get pictures and messages concerning the good side of 'timpo angling out there.
- Parents need to buy into any recruitment scheme and should be targeted in recruitment programmes (at the end of the day they have to foster the interest, children cannot do it on their own).
- · Producing more fly fishing media e.g. DVD's
- · Get greater exposure through schools and angling clubs.

Graph.3

· Embrace the "Take a Kid Fishing" initiative.



#### **QUESTION 3**

Should the TSFMP change direction and allow for much more active promotion and marketing of the Taupo f.shery?

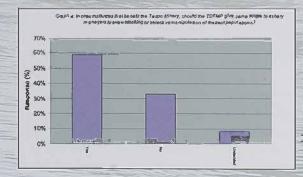
'fhe percentage responses are given in Appendix 2, Graph 3.

The largest response was no, the TSFMP should not allow for more active promotion and marketing of the Taupo fishery at 54%, although a significant proportion, 29%, thought it should. For those that felt it shouldn't the comments were contradictory and included:

- · There is no point marketing a fishery that is in a poor state.
- It is the responsibility of other organisations such as statutory bodies (e.g. Taupo District Council and Destination Lake Taupo) and commercial interests that rely on the fishery to promote and market it. This is not a DOC role.
- · Taupo already has an established reputation

No consistent themes or comments emerged from those respondents that thought the TSFMP should allow for more active promotion and marketing although some did mention the benefit to local business

Graph.4



## PART B: TAUPO, WILD FISHERY OR NOT

#### **QUESTION 1**

In circumstances that benefit the Taupo fishery, should the TSPMP give some scope to fishery managers to allow stocking or selective manipulation of the trout populations?

The percentage responses are given in Appendix 2, Graph 4

The largest response was that manipulation should be allowed (59%) although a

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- · Patented built-in retractor.



significant proportion, (33%), thought it shouldn't. Interestingly a quarter of those that thought manipulation should be allowed did not give any reasons.

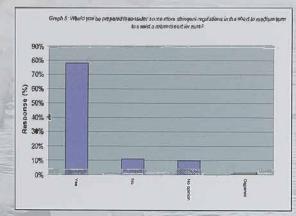
The main comments of those supporting manipulation included:

- · Use of the 'farming' analogy to hybrid vigour
- · Some couldn't understand the 'obsession' with keeping Taupo a wild fishery.
- Some manipulation will be needed to redress the current downturn in the fishery.
- Some said managers should look at the Rotorua model, go the "whole hog" indicating Taupo should be a stocked f shery
- Some stated that any manipulation should be done with caution and have a good scientific foundation before being implemented

For those respondents that thought manipulation or stocking should not be allowed their comments included:

- To be able to state a fishery is wild is a very powerful marketing tool.
- · It is well aligned with a pristine and green image.
- · Nature does the best job.

Graph.5



#### **QUESTION 2**

Would you be prepared to consider some more stringent regulations in the short to medium term to assist a return to earlier runs?

The percentage responses are given in Appendix 2, Graph 5.

The largest response was overwhelmingly that respondents would be prepared to incur more stringent regulations (78%). Only 11% felt they wouldn't Their main comments included:

- . If it improves the fishery, do it.
- Many recognised that regulation was a necessary tool for improvement.

A few had no issues with the later runs stating the weather was warmer and more

stable - it suited them.

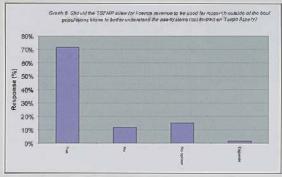
Suggestions about what should be regulated were wide ranging and main ones included:

- · Banning downriggers and jigging
- · Cull shags, catfish and in some cases swans
- Imroduce a slot limit (i.e. upper and lower size limit). This was a very popular suggestion.
- Implement a closed season on the Tongariro River or on the lake; many were prepared to wear a 2-3 month closure.
- · Implement a catch and release season.
- · Lower the bag limit (overall or at certain times of the year)

#### PART C: ECOSYSTEM MA NA GEMENT

#### **OUESTION 1**

Should the TSFMP allow for licence revenue to be used for research outside of



Graph 6

the trout populations alone to better understand the ecosystems that impact on Taupo fishery?

The percentage responses are given in Appendix 2, Graph 6.

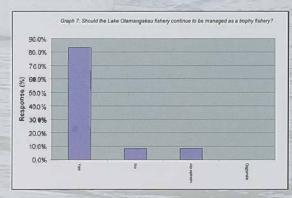
The largest response was that managers should have the ability to use license revenue for research (72%) only 12% thought it shouldn't. Comments from those that thought licence revenue should be used for research centred around the following themes:

- Understanding the ecosystem as a whole was important for fishery management.
- Many felt research into the food resources for the fishery was paramount especially smelt, but also alternative food resources (very common response).
- Shags and catlish (or getting rid thereof) were targeted by respondents again.
- · Some were surprised that this sort of research was not happening already.
- Some clearly did not want to see an increase in licence cost that could be incurred to fund more research.

#### PART D: MANAGEMENT OF LAKE OT AMANGAKAU

#### Graph.7

#### **OUESTION 1**



Should the Lake Otamangakau fishery continue to be managed as a trophy fishery?

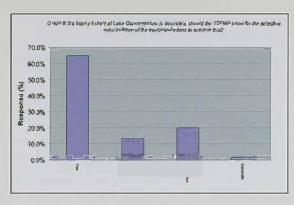
The percentage responses are given in Appendix 2, Graph 7.

Overwhelmingly (83%) felt that Lake Otamangakau should continue to be managed as a trophy fishery. Only 8% felt it shouldn't be and usually these respondents enjoyed the current fishery of smaller but more numerous well conditioned fish. Some main points to come out of the comments included:

 Having a dedicated trophy fishery makes Taupo complete as a freshwater

angling entity (Taupo for the table and Lake Otamangakau for the trophies).

 Lake Otamangakau enjoys an international reputation as a trophy fishery in its own right. It is important to preserve this.



Graph.8

#### **QUESTION 2**

If a trophy fishery at Lake tamangakau is desirable, should the TSFMP allow for the selective manipulation of the trout populations to achieve this?

The percentage responses are given in Appendix 2, Graph 8.

A strong majority (65%) felt that manipulation was acceptable, and often actually necessary to bring Lake Otamangakau back to trophy status. Only 13% felt this was a back idea. There were not a lot of specific trends in comment on this question but

some respondents felt that proceeding with caution was necessary to ensure the best fish and the fishery itself was preserved.

#### CONCLUSIONS

The discussion document exercise has produced some interesting results although the pool of respondents is not as big as expected. We now have to consider the opinions of only (0.9%) of respondents. This has not provided a very clear direction for refining the diaft; of the Taupo Sports Fishery Management Plan. Some observations from the process have come to light and these are as follows.

Many did identify that recruitment of children was important for the future of the Taupo fishery and the sport of angling. Some respondents felt that declining participation in the fishery was simply due to the recent downturn in its quality and that participation would go back up when things improved. This feedback from respondents often seemed to be framed more as a threat. Some actually said they would not buy another licence, or threatened not to until the f shery improved. Some questioned the need for a specific Taupo license and that this might be contributing to declining participation in hard economic times. This does make some sense as Taupo is a visitor based fishery. Uttipately, although it is good to know about these kinds of feelings they said little about the core issue of recruiting new users like children and the necessity of this to preserve the longevity of the f shery.

It appeared that advocacy and education programmes about the fishery are making an impact in the community. It was satisfying to see that many respondents under stood the concept that the fishery is revenue driven and further, that reduced revenue equates to reduced ability to manage the fishery. Another area where there was good understanding was how important the overall ecosystems and particularly food chains are to the Taupo fishery. Many respondents recognised that the recent downturn in the fishery was essentially due to starvation in the system and that work was urgently needed into better understand the ecosystem and particularly the food resources for the fishery and how they could be improved.

Tight line-for Meg Crowky

Photo by Steve Crowley



Reading the responses there was a strong feeling that many respondents just wanted something done. Perhaps that is why there was such a shift in opinion from the historical viewpoints on wild fishery ideals. Taupo as a wild fishery used to be held in very high regard but now there seems to be a changing view that this is less important than baving plenty of good quality fish to catch (perhaps another outcome of the downturn).

There was an overwhelming feeling amongst respondents that Take Otamangakau should continue to be managed as a trophy fishery. Many who commented on this issue were long term users of that fishery and as such understood it and what it offered in the past. Some were keen that anglers be offered the first opportunity to return Lake Otamangakau to its trophy status through a relaxation of the season and bag limit regulations.

#### WHERETO NEXT?

Once endorsement of the department's analysis of the discussion document has been received by the Taupo Fishery Advisory Committee and the Tuwharetoa Maori Trust Board the document recommendations will then be incorporated into the final draft of the management plan and it will go to full formal public submission in 2012.

With over 10.000 adult season licence holders we hope for a better response to the final draft of the management plan.



### Spinning a New Web(site)

By Dave Copiev Public Awareness Officer for the Tongarico Whan ganui Taranala Conservancy

recent project of mine has been to try and make better use of the web as a means to showcase what the Taupo fishery has to offer The previous web pages about the Fishery were very basic, and didn't offer much in terms of information directed towards visiting anglers, other than information abour licensing, regulations and the like. After sitting down with the fishery management group and taking a look at where we were heading with the website, it quickly became apparent that we could do things very differently and deliver a much more satisfying user experience for people visiting the DOC website. The internet offers the opportunity to deliver a great deal of information which

might ordinarily have

sleep and can provide quality answers to enquiries all day and all night So the decision was a simple one to make. Let's get stuck in and look ro rebuild the web pages into a strong advocacy tool, and a rool which would help us encourage young or learner anglers to have a go and enjoy what the fishery has ro offer.

The department in general has already accepted the challenge of improving its website, and has been working hard to bring the DOC site up to a standard where it meets the needs and expecta tions of its user group, which in turn increases the size of the user group as satisfied customers make for return customers The recent ONYA award is a good indication the department is making this adjustment well, as this is an award from the web industry itself which recognised excellence in websites. It is the Oscars of the web world, and the web ream was stoked in 2010 to be awarded the ONYA for the best government website.

A number of issues were quickly identified once we got started on the review. The DOC site is huge, with a massive range of information on it, and it is difficult to maintain the profile of the Taupo fishery within such a large and complex site. Most websites aim to be as 'flat' as possible,

which is a term for a site which is only a couple of mouse clicks deep. The department's work is so wide ranging, and so complex in many cases. that the website is very 'deep', which means there is often lavers and layers of information which need



to be filtered through before a user finds what they are after. There was the under standable sense that fishery information is lost in the site, and that once a visitor to the site found it there was nothing to help get people started in terms of how to or where to fish, nothing about kids and getting them started, very little about spinning, and the list went on.

So two initial problems were obvious, in that we needed to make the fishery pages easier to find, and improve the content on them. The first step was easy, and we have created a 'friendly' URL, or web address, which will take visitors to the fishery pages. Just go to www.doc.govt.nz/fishraupo.

The second part was more complex, and has taken some time to get to a stage where we were ready to unleash it on the public, but we are ready to go with stage one of the re-development. We have a whole new suite of pages online and ready for people to use.

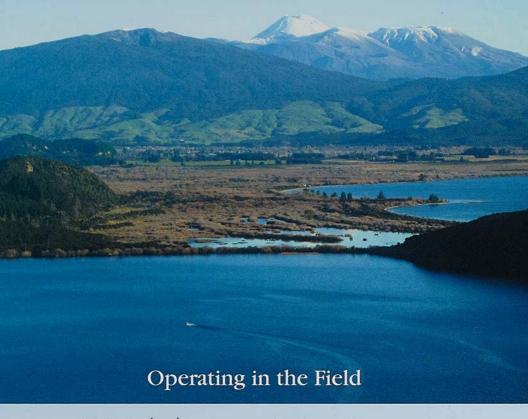
The first consideration has to be to understand the various audiences that you are working with, and the best way to provide the type of information they want to sec. Web developers often usc the concept of a 'persona', a fictional person who most represents the audience they are trying to communicate with, as someone to help them focus the information they are providing online. The department has a number of different 'personas which broadly represent the different users of the DOC site. In the case of the fishery pages the persona which most closely fits the fishery user is called 'Pete', and represents a 56 year old living in Auckland. He is married and has children. Work keeps him busy, but he tries to keep active and considers himself a keen outdoorsman and uses the DOC web site when considering or planning to 'go bush'. Pete uses the web site almost exclusively for recreational purposes and has a passing interest in conservation and environmental issues.

In many ways Pete represents the regular user of the fishery pages, someone who may be planning a wip and wants to check out the monitoring report to see if the fish are running, or find out where to pick up a licence. This group of users were latgely able to access the information they needed on the old website, and the information they need is still on the new site.

The audience that wasn't well catered for was the novice angler, or the new visitor to the Taupo fishery, and these are the people we were really keen to focus on when developing the new web pages. Information which is designed to help newcomers to the fishery geta handle on how to fish and be successful at Tampo is a key part of the new look. Now visitors can come to the site, and within a few clicks of the mouse be able to find information about where to fish and how to fish, right down to some real detail about the rivers and lakes, as well as the techniques and flies and lures to use.

In the near future we will be adding videos to the site as well, which will demonstrate all the various techniques which are used around Taupo, from jigging and harling to fishing on Lake Otamangakau. The intention of this approach is to make it as easy as possible for people to get started in a sport which can be daunting to begin with, and to help people be successful. We are not going to try to provide anything more than basic information, as we don't want to take the fun out of learning to fish by giving away too many secrets!

We are hoping to begin selling Taupo fishery licences online in the not too distant future, and ultimately we would be thrilled if in a year's time we had thousands of anglers coming to the website to take a look around and learn a thing or two which would help them make the most of their next trip to the fishery. This will really allow us to unlock the potential of the website as a tool to help us achieve what anglers want in managing the Taupo fishery.



By Ray Bond Ranger, Fishery Operations there is never a dull week working in the fishery Field Operations team. We have had a busy year with a relatively lean team, and the last six months have flown by We do a wide variety of work so I have chosen just a few of our key tasks to write about. There is a lot to know about the Taupo fishery, and every day I learn something new Hopefully even the most avid Target Taupo readers will find something of interest in this update.

#### Harvest Survey

On 1 July we concluded the 2010/2011 harvest survey for the lake and associated rivers. The weather and flying conditions on the day were superb, which was a nice way to finish. The harvest survey is carried out over a full year, once every five years, to monitor

the fishing pressure on lake Taupo and the major spawning rivers.

I was fortunate to be involved with the second half of the survey, coordinating the flights and angler surveys. The harvest survey consists of a combination of aerial angler counts and ground interviews at the boat ramps or river banks the aerial counts are completed from the back seat of a Piper PA-18 Supercub. The right combination of turbulence and sharp manoeuvres, while focusing closely on a boat 500 feet below to see if you can catch the glimpse of a fishing rod or line, can quickly upset the stomach of some people When there are over 200 fishing boats on the lake to manocuvre between it can be challenging to keep down your previous meal. Luckily I did not have any major issues and thoroughly enjoyed the survey flights.



Above: A spectacular day flying over Motuoapa Bay during the 2010/2011 harvest survey, Photo by Ray Bond

Top right: Rainbow Uout lined up at the Waipa trap burder waiting to be processed and released upsneam for spawning. Photo by Ray Bond



Although there were some patchy periods with mixed feedback from anglers, in amongst the later months of the survey there were some good, well conditioned f.sh being caught with bellies full of smelt. A big thank you to all those involved, including Taupo Air Services 1.td, the charter boat operators, and all the anglers that contributed to the survey. The harvest survey data has been summarised in this edition of Target Taupo by MarkVenman.

At the end of the harvest survey the focus for the Field Operations team was redirected to monitoring trout that escape the lake harvest and migrate to the rivers to spawn. The monitoring data is collected from our fish trapping operations, river angler surveys and drift-dive escapement counts.

#### **Trapping Operations**

Fish traps are set up across a stream to catch the adult trout as they migrate upstream to spawn. The trout arc measured and weighed, then part of a pelvic or pectoral fin is clipped and the fish is released upstream. The fin clipping process identifies which year the trout passes through the trap. The

portion of the fin that is removed grows back but there is a ridge line across the width of the fin where the cut was made. Many of the fish have multiple finclip markings as they spawn in the same stream year after year Some of the older trout have double clips on all or most of their fins. The clipping system follows a clockwise sequence around the fins. In 2010 we clipped the right pectoral fin, in 2011 the right pelvic fin, in 2012 we will clip the left pelvic fin, and so on. Next time you catch a Taupo trout have a closelook at the fins to see if they have been clipped. You may be able to work out which years the fish has been trapped.

We would ultimately like to trip and monitor all of the adult wout that move up a stream, however when the stream floods over the trip barrier, fish can pass freely until the water level recedes and the trap can be reinstated. We also monitor the clips on the downstream kelts which gives us a good idea on the numbers of trout that we miss moving upstream during a flood. Thus, the data collected from the fish passing through the trap provide an excellent indicator of the state of the Taupo fishery. The numbers and

condition of adult spawning trout moving up a particular stream can be compared from Year to year.

Our main fishery monitoring traps are on the Waipa Stream, an upper tributary of the Tongariro River, and the Te Whaiau Stream at Lake Otamangakau, and a contractor operates a trap on the Hinemaiaia River. There is also a smaller trap across the Papakai Stream near Te Whaiau, and we trapped the Tokaanu Stream for a short period this year, You can read more about the Tokaanu fish trap in the article by Michael Hill in this edition of Target Taupo.

We had good a trapping season at Te Whaiau. There were a few chilly mornings when it was hard to keep the tingers warm enough to process the fish in the trap. One morning I had a low of -8.1 degrees Celsius, and a highlight for me was the heavy snow fall while I was on duty in August. Overall I think we were pretty lucky with the winter weather conditions this year, Others in

our team may suggest otherwise, as I did seem to miss most of the heavy downpours which resulted in sleepless nights working in the trap. The trap and campsite were dismantled and removed early September when the spawning run petered off.

We continue to monitor the fish moving up and down the Waipa Stream, and in October the numbers and condition of fish have really picked up. I am relatively new to the Field Operations team and have not had many occasions when I have been up all night cleaning the debris from the trap in heavy rain, however in October I experienced a couple of busy nights and my first deent flood.

On 11 October I went into Waipa in the afternoon and processed 34 fish, which with the mornings effort totalled 57 for the day. The next day, around 3am. I woke to heavy rain. There is a skylight above the bed in the hut which amplilles the noise of the rain drops on the

The seeluded Te Who had sish map camp in the foreground of the snow-covered Tongariro National Park, Photo by Ray Bond





Fishery langers Harry Hamilton and Ray Packer dismantling the Te Whilau fish trap at the end of another successful season. Photo by Ray Bond

roof, such that you cannot sleep through a signif, cant downpour. There was 26mm in the rain gauge and the stream was rising. The rising flow triggers the trout to move during a spawning run and the trap begins to fill with fish eager

to pass across the barrier and continue on their journey. I had a busy morning processing fish and maintaining the trap by removing the build-up of debris, such as pumice, leaves, twigs, and branches, which are continually washed down by the flood waters. Even a small amount of debris caught along the trap barrier can cause the water level to rise quickly, and if you are not there to clean it a dam forms and the water flows over the top. The trout can then swim over the barrier and the trap is no longer functional.

There ended up being 44mm of rain overnight and the Waipa Stream was discoloured and flooding. When you are in flood mode it can be quite hectic. You are generally working alone in fast moving water, and often in the dark of the night or early hours of the morning. Wader belts are essential to ensure you float if you were swept downstream while working in the trap. I weighed and measured 138 fish trapped between 3am and 7am, 72 moving upstream and 56 downstream. Then I spent the rest of the day just trying to keep the barrier bars clear before handing over to the





Counting trout in the crystal clear Kuratau River spring pool. Photo by Ray Pacher

next operator at 3pm. There was 80mm of rain over the following 24 hours and the trap completely flooded therefore the operation had to be temporarily abandoned.

From mid-July to the end of September we had relatively low rainful, which is likely to have delayed the main spawning run at Waipa further this year October has proved to be a wet month and therefore the number of fish moving has increased significantly. There have been some well conditioned fish passing through the trap, which is great to see. During the peak of the spawning run there is a close relation-

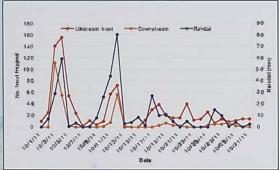
ship between minfull and the number of fish moving up or down the stream. I have provided a sample of the data collected by our trap operators in the graph below to illustrate this relationship. If you look closely at the graph you will see the flood I described above included in this data (11 October). You will also see that there were a couple of even busier nights endured by one of the other trap operators at the beginning of the month (3-5 October).

I had another busy night on 1 November with a targe number of kelts moving back downstream. In the hours of darkness I processed a total of 211 trout, 51 upstream and 160 downstream fish. Needless to say I did not get much sleep that night either, but it is good to experience these events and gain further understanding of the f.shery.

# River Angler Surveys

Over the winter and beginning of spring we walk the rivers collecting creel data, conducting angler satisfaction surveys, and monitoring compliance with the Taupe Fishing Regulations. We direct a lot of our attention to the Tongarian River

Daily comparison of trout trapped vs. rainfall at the Waipa Stream fish trap





due to popularity, however other rivers surveyed include the Tauranga-Taupo, Waiotaka, Waimarino, Hinemaiaia and Waitahanui, If you have been interviewed before you will already know the routine. However for those that have yet to meet us on the river bank, we check your fishing licence and ask how many days you have fished the river since the season began. We then record your method of fishing, how long you have been fishing on the day, and your catch data including the number of fish kept or returned. These details are used to calculate catch rates which are compared over time to identify trends in each of the rivers. Further information on the fish kept is also recorded, such as species, sex, length, weight, and if there are any trap fin clips. The survey is concluded with questions on your overall satisfaction during the fishing season, providing an opportunity for feedback.

#### Drift-Dive Escapement Counts

The escapement count monitoring programme was established in 1990. The Field Operations team monitor the number of trout that make it to the upper sections of the key tributary rivers over five months of every year. We do this by drift-diving a standard section of the river above the winter limit.

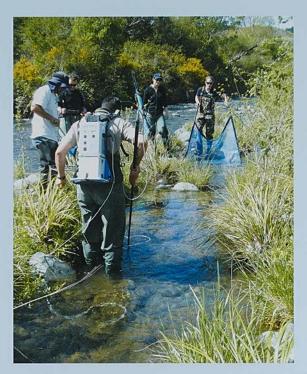


We swim the icy cold rivers over the winter and spring months with a mask and snorkel, counting trout that have evaded anglers lures on their way up the river. We currently monitor the Tauranga-Taup. Hinemaiaia, Waiotaka, Whitikau, Waimarino and Kuratau rivers this way. The number of fish varies from river to river, however the larger Tauranga-Taupo River has had counts of around 500 spawning trout per kilometre dived for the last three years. Although the late spawning run trends continue, and overall numbers have not improved much, we have seen a lot of fish in



Bottom rights Waipa lish trup beginning to flood at Jamesignifying the start of the next working day for the trap operator. Photo by Ray Bond





Opotiki Ranger Hemi Rarsdell electric fishing along a shrillow side pool of the Tangariro River Support team, from left to right, Mike Mador, Kateina Spencer and Heather McKenzie. Photo by Ray Hond

great condition. The density of redds (spawning sites) in some parts is also very positive and there have been large numbers of fry (young trout) observed in the shallow waters.

The last few dives are the most pleasant as the weather improves and the fish counts increase significantly. Drift diving the Whitikau River is a personal favourite as it is largely inaccessible to the general public and has some picturesque scenery. There is no radio or cell phone coverage so a personal locator beacon (PLB) is carried in case of emergency. In early November this year the escapement count in the Whitikau River was the highest recorded for four years, which was great to have witnessed.

Staff Training and Development We have also been focusing on training and development within the Field Operations team, particularly for the newer staff like myself, including the training of three new boat operators. All participants passed the Boatmasters course held earlier this year, thanks to Clive Nelson from the Royal New Zealand Coastguard. We are now building up our boating hours in preparation for the practical assessment required to skipper DOC vessels.

In September I completed a seven-day Gonservation Law Compliance (CLC) course in Thames and have now received my warrant to assist further with the law enforcement side of our operation. The next CLC course is scheduled to be held early next year here in Tutangi, which will allow us to continue to build on the number of warranted staff within our team.

In October we held an electric fishing training course here in Turangi with fresh water fish ecologist Marty Bonneu from NIWA Christchurch. Other interested parties were invited such as Fish & Game, and various regional councils. The course booked out quickly with eighteen completing the full course, and eight others completing a refresher training course. Electric fishing is a tech nique widely used around New Zealand to sample fish populations. An electric current is pulsed through the water using a purpose-built electric fishing unit. When performed correctly, there is no perma nent harm to fish, which recover in as little as two minutes after being stunned. The ptdsed current emitted from the util is designed to interfere with the nervous system of fish. Uncontrolled muscular convulsions result in the fish swimming toward the anode of the electric fishing machine. The fish is then quickly scooped up in a dip net before it recovers. The electric current flowing through the water while electric fishing is enough to stop your heart, therefore operators must be insulated from the water at all times by wearing rubber waders. At least two trained operators are needed to operate a pack-set electric fishing machine, and must be trained in CPR.

Electric tishing uninees hunnil 2011. Back row, Ray Packer, Katrina Spencer, David Moss, From left to night, He nit Barsdell, Pete livingstone, Dave Plowman, Ray Bond, Willie Marshall, Heather McKemzie, Callium MacKenzie, Richard Storey, Milena Palka, Edward Lee, and Mail Osborne Seated, Neal Turanga, Colin Comrie, Mike Mador, Annabell Be stie. Photo by Marty Bonnatt. NAWA



We also completed our annual river safety and wader training session at the Tongariro River. This training is essential for our team as we work in and around swift water almost every day. The practical side of the training included a 'dip' in the Tongariro River while we were wearing our waders (and a wader belt of course). Other areas of training include chainsaw use, agrichemical application, rural fire fighting, and first aid.

In summary, 2011 has been a successful

and interesting year for the Field Operations team, and certainly for me being new to the team and learning a great number of new skills relating to my role. We work in all weather conditions, and at times this can be quite arduous, however I consider my self to be extremely fortunate to be working for the fishery and cannot imagine a more enjoyable and stimulating job. We will all be looking forward to another year where we can do it all again in 2012.



### The Major Jones Pool

By Arthur Parish, Historian



his pool was named after Major Rhys William Wykham Jones, a twin boy born in Carmarthenshire Wales.in 1863.

Unfortunately both of their parents died whilst they were still very young but the boys were taken under the care of a local surgeon and his family and, as a consequence, they were well looked after and received the best of schooling. Cyrif, the major's brother, went on to Oxford University, and eventually became a civil engineer, whereas Rhys chose to 'take the King's shilling,' joined the army, and served for many years in the Royal Sussex Regiment.

Major Jones was with the Royal Sussex in 1882 when they were part of a force (35,000 men) sent to prevent the Suez Canal (which had been completed by the French and English in 1869) from being taken over by the son of the

Khedive. The Canal was of immense value to England as it saved shipping having to round the Cape of Good Hope and travel up the African Coast.

Baving successfully completed their mission the Royal Sussex was then sent to Sudan, in a vain effort to rescue General Gordon at Khartoum, who had been pleading for help from the British due to civil unrest and the subsequent threat to British interests. The relief columns arrived too late to prevent the general's death.

Jones and his regimem were then sent to India, as the country's deteriorating situation was finally acknowledged by the British government. It was decided to station British troops there permanently especially in the North-West Frontier (the border region between modern day Pakistan and Afghanistan) where rebel tribesmen continued to wage war by attacking the hill forts. The major served



for a long time in these locations and British troops were to remain in India for the next seventy years.

Lieutenant Jones, as he was by now, returned to England in 1885 but shortly afterwards went back to India once again, serving at both Rawalpindi and Gharial. In the 13th of April 1892 at age 29 he was promoted to captain, but a few weeks later he resigned for unrecorded reasons and served the remainder of his career with the militia who did a variety of jobs including the training of men and horses, many thousands of which were used by the Victorian armies.

Upon his return to civilian life be received a post-dated commission (and pension) of ilonorary Major due to the excellent work that he had done during his final years in the army.

It was whilst in India and during periods of leave, he developed a keen interest in trout fishing and would have learnt of ova being taken from the finest trout rivers in England and Wales to establish a trout population in New Zealand.

When discharged in 1906, he initially returned to England, to see his brother and settle his affairs. He then travelled via SS Makum to New Zealand, arriving in 1910 when the trout fishing was at its finest and fish weighing 10 lbs plus were



Top right Jones, wearing The Egypt Medal and The Khedive's Star. Photo supplied from the

Turangi Library arabites

Right: Major Jones at Tokaanu Stream about 1910, wearing his Sunday best including pith belace! Photo copied from a Turangi library book.



common in Lake Taupo and its rivers. From this time onwards until 1921, he fished the Tongariro River and Tokalanu Stream, travelling between the two on an old Douglas motorcycle.

Well known local fishing guide Joe Frost, who would have met the major in his later years, told Vice Admiral Hickling (of 'Fresh Water Admiral' fame) that the major fished with a 16 foot Scottish 'Spey' rod and landed his fish with all the finesse of a warship weighing anchor and departing - in a hurry!

The Major is estimated to have stood 6 feet 2 inches tall and to have weighed 22 stone. He was also known to bellow like a bull if anyone dared to enter HIS pool, in those days each fisherman having the accepted 'right' to occupy a pool for at least half a day unmolested!

The major returned to England where he died of a medical complication in 1922. He was 59 years old.

He is buried at Bath where his tombstone reads....

"Mourned by friends all over the world".



# Tokaanu Fish Trap Revisited

By Mike Hill Ranger fishery operations



of the Tokaanu fish trap. The last time trapping of spawning trout tok place on the Tokaanu Stream was in 1995 so we were all excited and curious to see how the trout in this important spawning stream were getting on.

A lot of information can be collected from a fish trap, for example size and condition of fish and timing of the runs but this time the reason for trapping was to collect 50 adipose fin samples from free running trout for the purpose of DNA analysis.

What we know is that trout have a gene called 'Clock Gene' that predomi-

nantly determines the seasonal timing of spawning.

The reason why we trapped the Tokaanu Stream this time was to collect a sample of fish for analysing the prevalence of that gene and this should help us to determine when the shift in spawning timing started to occur.

Weatherwise 1 can remember the seasons being a bitmore consistent than what we have experienced in the lastsay 15 years. Summer was summer, winter was winter and everything adapted to this and ticked along nicely. But with the erratic differences in our climate in recem years, month to month 1 have



Top left: Mike Hill checking trap.

Botton Left: Mike Hill stores an adipose fin sample.

Above: Dave Ploughman with a healthy rainbow Photos by Mark Vennum

noticed change.

Historically trout started to spawn in April but now they don't start until July and will continue to do so much later imo the year than previously. In the last 10 years we have observed this shift in their behaviour therefore by comparing this years genetic samples with samples collected in 1989 we can try to understand whether the incidence of that gene has changed or stayed the same.

In preparation to our task the first thing that was needed was permission to enter the property which was kindly given by local Tom Duff.

Next was a well needed repair to our cage trap. Amidst the long gass at the back of the workshop it looked like a rusty old wreck that despertitely required a fair bit of rewiring to patch up some gaping holes. Before long a cage trap was reborn and a lock and chain added to the lid to discourage anyone taking fish as the location of the trap site could be susceptible to poaching.

Once the trap was in good working order we loaded it up, including side screens and headed out to the Tokaanu Stream. Trapping in this stream was all new to me. Thankfully longtime ranger Harry Hamilton had trapped here in the past and his experience ensured installation was a quick and smooth process.

There weren tany fish seen upon arrival at the old trap site and I was thinking getting our samples could prove hard to get. I was intrigued by the vegetation in and around the stream that reminded me of similar characteristics to the similarly spring-fed Waitahanui, a river I have spent a lot of time on.

Once in place and ready for action all we had to do now was wait. The following morning, inside the trap were: 7 rainbow trout, a great start. Besides recording the fish and removing a fin sample which was in preservative the only other daily chore was to clean the side screens which on some occasions really built up as this stream contains a lot of weed.

During our time trapping the Tokaanu Stream the trout were of reasonable size and as is to be expected from spawning fish, dark in complexion. Although we didn't weigh the fish as it wasn't necessary for this study. Lestimated most to be between 1kg and 1.5kg We did record the lengths which ranged between 29cm and 50cm, the overall average being 42 cm. Out of the 45 fish that we managed to capture19 were female, 26 male and 32 were legal size.

Trapping proved to be successful over the following week and a half with reasonable numbers of fish pushing through and a likelihood that our samples would be obtained sooner rather than later.

Although nearing our target of 50 fin samples, one morning we discovered the trap had been breached with the lock broken open leaving us with an empty pen. We decided it was prudent to pull the trap out, being satisfied with 45 samples which was good enough for the study.

We eagerly await the results that will determine whether or not it is in fact genetics that is making the winter runs much later in recent years rather than the influence of the weather or other environmental factors. Only time will tell.







By Randal Hart On-site ranger of the Ponguiro National Trout Centre



# What's up at TNTC

thas been a while since we have had an update on what's happening at the Tongariro National Trout Centre as my recent Target Taupo articles have been about the trials, tribulations and rewards with the Genesis Energy Freshwater Aquarium.

The continuing development of the aquarium is still the main focus at the TNTC site as new fish are introduced into various tanks. The most recent additions were the giant bullies and koura into the kokopu tank. It was interesting watching the dynamics when the new "tenants" were introduced as the kokopu would not leave the koura atlone. However the koura soon got their measure and after a few healthy nips the kokopu learnt their lesson and now leave them atlone. The giant bullies also had to learn to how to compete with the kokopu during feeding to get



their fair share of food as the kokopu are very quick and aggressive. The flow rates in the main river tank have been altered to give a better flow partern at the bottom end and this has altered the dynamics of the f.sh behaviour in the tank. The fish are now a lot more visible especially during feeding time and visitors are delighted when they suddenly see lots of fish come out of hiding when food is stroumd. This is a good demonstration on how secretive and cryptic native fish are. Additional lighting has been added to the matin river tank which has enhanced the look of the tank and makes the small bullies and dwarf galaxias more visible as they dart in and out from their hiding holes.

The eggs for the 2013 children's fish out program were taken from early run Lake Otamangakau brood stock. These ova are part of a larger banch being used in a pilot project to test the viability of mising small banches of early run fish and introducing them into the Tongariro River. Moreletails of the project are discussed in this issue's article titled "Restoring the Tongariro - Act 2"however, there is still a lot of work to be done and approvals to be given before the fish are released into the river system. The ova have hatched

Top and left:Whio takes a break at the children's pend from aTonguiro winter flood Protoby Kim Alexander Turia



Nathaniel Mellon rescues blue duck Photo by Randal Hart

and the fry are progressing well which means there are a lot more trout in the hatchery than normally seen.

The Tongariro National Trout Centre Society has completed the finishing touches to their new extensions and displays. Their Riverwalk building has taken on a whole new look and includes a lot more displays some of which are educational while others are of local interest. Examples are the Sargood Gallery which displays local art as well as photos and memorabilia titled "Those Were the Days". There is also the Amos - Milner library which has a large collection of are and current books about trout fishing and this library offers the opportunity to read or research a wide range of literature relating to trout fishing. The auditorium displays a large collection of art by local artist Val Raymond featuring the Tongariro River and there is a larger retail area where you can purchase a souvenir of your

visit. To help the mums and dads have more time to enjoy and view the various displays there is a new kids' area where children can show their creative skills or dress up like real anglers.

During the Rugby World Cup there were a lot of international visitors and it was very refreshing to hear some of the positive comments abom the TNTC site as well as the clean green image of New Zealand. These are some of the things we take for granted but when you see them through international visitors eves it reinforces why we must protect and maintain what we have. The kids' fish out program is still very popular and is always fully booked out well in advance. This program and the many school visits continue to deliver a positive message on the values and importance of our environment and ecosystems to the future guardians of our country,

There was a very special visitor to the TNTC site recently, it was a young whioblue duck - found trapped under one of the buildings by Ranger Nathaniel Mellon. The whio was retrieved safely and released without injury, other than damaged pride, back into the Waihukahuka stream. There have been several sightings of whio and their ducklings on the Tongariro River recently and it is a good sign that the population is increasing, so if you do see any of these magnificent birds on any of the Taupo rivers please comact DOC on phone 07 3847106 and give them the details,

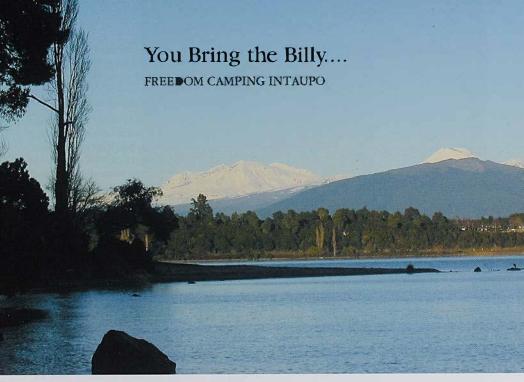
In the meantime remember to Cheek. Clean and Dry and look after the very special place we have.



TNTC is a great summer plenic spot!

Photo by

Kim Alexander Turia



By Jill Welsh Ranger, Compliance and Law Enforcement

uring July and August 2011 the Department of Conservation worked with other agencies to plan for, and implement the Freedom Camping Act 2011 which was signed off and enacted on 29 August. Department of Conservation compliance and legal staff had quite a large input into the writing of the bill and the outcome of the Act and the accompanying Infringement Notice system. There was a bit of a rush to get the Act in place in time for the start of the Rugby World Cup, when it was envisaged that there would be substantial growth in numbers of visitors to the country over the later part of the year, therefore also increasing the potential risks of people camping irresponsibly and generally making more mess in easy to reach reserves, road ends and rest areas up and down the country.

The real purpose of the Freedom Camping Act is not as some see it, to stop people camping outdoors; rather, exactly the opposite. The Act is there to encourage people to continue to eamp in our great outdoors, but to do so responsibly in approved places This means there is an expectation that those camping will take all their waste with them when they leave a site There is nothing worse than pulling off the highway into a nice serene spot to enjoy a break, or to have lunch and look around and see birs of used toilet paper and human excrement scattered about. New Zealand is world renowned for being able to just pull up somewhere on the side of the road and set up camp for the night. This is our culture, what New Zealanders are about - sadly, a handful spoil it for others. As a rule we have always been known as tidy kiwis' - alas this has not been the case in recent years. All of the mess left lying around really does mar our clean and green image. The Freedom Camping Act has now been put in place to remind us of how lucky we are to live in a country where beautiful scenery abounds and we are allowed to go out and enjoy it - but

Top: Taupo Scenic



we just have ro be responsible in the way that we do it Camping on Conservation land is generally permitted unless there are prohibitions or restrictions which are governed by legislation. Restricted or prohibited areas are usually sites of great conservation value to New Zealand that require protection or have access and/or health and safety concerns, and will normally have signage to indicate that camping is not allowed or that there are restrictions in place.

Freedom Camping means "to camp (other than at a camping ground) within 200 metres of a formed road, or of a motor vehicle accessible area, or the mean low-water springs line of any sea or harbour, or on one of the Grear Walks Track, using 1 or more of the following: (a) a tent or other temporary structure (b) a catavan (c) a car campervan, house truck, or other motor vehicle". The DOC website gives a lot more information about freedom camping - to find out more go to: www.tloc.govt.nz Interim restrictions about freedom camping are being reviewed and over the longer rerm, a process of consultation to further define conservation sites with regard to restrictions or prohibitions for camping, will occur Notices about this will be published as a summary in the Gazette and local and regional newspapers. The Department will also have them avail able for viewing on its website and in DOC offices around the country.

Some areas that have been commonly used for overnight stopping are now zoned as no camping areas – these are all identifiable by signage that is self explanatory. The Freedom Camping Act may be of particular interest to the angling community. There are quite a few serious f shos who escape the humdrum household chores at the weekend and head out for a couple of days of fishing fun. Part of that fishing getaway often involves a couple of angling buddies taking a van or campervan and parking up at a favourite spot at night

- all ready to go before farst light in the morning. Although this may seem harmless enough, it is often in no camping areas where anglers park. There are no facilities nearby and the vans or vehicles they use are not equipped with waste holding systems - because of this, they then become like so many of the people we know of who freedom camp. Anglers are no different from any other tourists therefore cannot be treated any differ ently.It's all about changing our attitudes and in some cases, old habits. Overnight staying is no longer permitted in a lot of the road end car parks around the Taupo Fishing District - these areas are clearly marked with a no camping symbol or sign. Don't despair - a quick trip or phone call to the local DOC office or council office will set you on the right path to a legal camping spot somewhere in the area. It just might mean that you'll have to get up ten minutes earlier to travel to the favourite fishing haunt for that magic dawn fishing experience.

DOC rangers monitor the restricted areas on a daily basis, looking ro educate those who are not too familiar with the new law or the area they are in. More often than not, campers will be moved on to a legitimate camping site. In extreme cases an infringement notice will be issued and this could mean an instant fine of \$200 for each offence. From the Department's perspective the Infringement Notice system is a very valuable tool. It creates for staff, an opportunity to deal with minor offending on the spot and negates the need for staff to spend valuable time on creating offence files to put through the whole prosecution process which in turn. takes even more time. Staff from local authorities are also empowered under the Act to deal with camping infringe ments that occur on land they adminis ter. Even though there are a lot of don'ts' and 'no camping' spots, likewise there are even more places where camping is okay - both in DOC areas and local



Camping destination by car or by boat your rods ready to go Photo by Anna Aleknight

authority areas. Most local authorities have put out brochures about where to camp and a visit to any DOC office or the DOC website: www.doc.govt.nz will provide advice about DOC approved camping sites.

Over the coming summer months we see a lot of visitors coming into the area to enjoy what it has to offer. The great Lake Taupo has got to be one of the most used resources within the Taupo region. Many lake users love to head around to the idylic western bays to try their hand at fishing. Some choose to stay overnight there – it truly is a wonderful area in summer time and we are extremely

fortunate to have such a place to get away from it all for a couple of days.

DOC is not responsible for governing the camping activities on private land around the western lake shores, but we do have a moral interest in supporting those land owners who offer parts of their estates to the camping public. The Maori Land Amendment and Maori land Claims Adjustment Act 1926 provided for licensed anglers to have right of way foot access to rivers and streams, and general public access to the lake and the lake shores. It does not allow for general entry onto or over private land except in places where there is an agreement by land owners to allow access. Some land owners have provided areas where public camping can occur, but this is entirely at the discretion of those owners. We need to remember that it is indeed a privilege to be able to visit these areas, stop at the beach and have lunch, swim, moor a boat, and gencrally recreate - and in some cases, have permission to stay overnight. There are a few conditions in place in those places where camping is permitted, and if we all abide by those conditions we may all continue to enjoy these wonderful, secluded areas for many years to come.

Some helpful information for camping in the western bays:

#### WHANGANUI BAY (NZTOPO 50 BG35 371035)

Contact for bookings and information — Carmen Asheroft Ph 027-6564505
Situated south of Waihaha with a north eastern aspect is Whanganui Bay, It is a large bay with many private dwellings – some permanent residences and others holiday homes. Access to the bay for camping is by boat or by car along the private road from State Highway 32 although it should be noted that access along this private road for the purpose of angling is not permitted. It will cost \$10 per person for an overnight camp site and \$5 per person for camping during the day. This fee also covers the cost of access to an area for rock climbing for the more agile among us. The fees contribute to the maintenance of the road and the camp sites, and a portion also goes towards improvements of the Marae. There is a toilet on site but no showering facilities. It is asked that people do not light open fires due to the risk and the remoteness of the area, however it is permissible to use gas cookers. Carmen is happy to assist if you run out of some grocery item or other necessity – just pop over and see her. All rubbish and waste must be taken with you when you leave.

#### WAIHAHA (NZTOPO 50 BG35 386103)

#### Contact for bookings and information - Miriama Matene Ph 021574130

This bay is situated north of Whanganui Bay and is one of the most used camping areas in the western bays and has been for many years. There are 10 camp sites within a restricted area of the bay and the fees for camping there are \$20 per camp site for an overlight stay – this covers one boat per camp site, extra boats are charged at \$10 per night. For those who wish to pull their boats up on shore or up the river and sleep on board, the cost is \$10 per person per night. The fees contribute to the maintenance of the facilities and the general camping area. There is a toilet on site. When camp sites are full, as they often get during the summer months, Miriama is happy to make the Marae available for sleeping (plus the use of the dining room for meals) – a fee applies and you will need to speak to Miriama about the charges for this. As with other areas there is an expectation that you take all rubbish and waste with you when you kave. No open fires are permitted although gas cookers are okay, Waihaha Maori Land Trust welcomes anglers to the bay and an alternative access is by road and down a walking track into the bay itself Use of the walking track down into the bay incurs a charge of \$5 per person per day, or alternatively you can pay \$30 for a year's access pass

#### WAIHORA (NZTOPO 50 BG35 415151)

#### Contact person for bookings and information - Bob Andrews Ph 07-3339311

This bay is situated to the North of Waihaha and is private Maori owned land. There is only one designated camping site at the northern end of the bay near the Waihora Stream mouth. There are no toilet facilities available so a portable toilet is necessary. There is no charge to camp at Waihora but it is necessary to ring and book Some people sleep on their boats pulled up onto the beach or up the stream and owners are happy for this to cominue. There are only a few restrictions around camping at Waihora. Ring and book if you wish to stay at the camp site overnight. Others may have booked it already and you won't want to be disappointed. No open fires are permitted – campers need to be prepared to use gas cookers. Take all waste out with you when you leave – leave the site clean for the next user and don't leave any rubbish behind.

#### DEP'ARTMENT OF CONSERVATION LAKE SHORE RESERVES

DOC administers many tracts of land adjacent to the lake that look attractive to people intending to camp. In the western bays there are spots such as Whakaipo, Kawakawa and Te Hapua Bays – these are all administered by the Department and overnight camping is prohibited in these areas due to the risk of fire and environmental impacts.

All in all we are lucky to have the opportunity to spend time in the secluded western bays. Lots of people have been fortunate to have camped in these parts over the years and many will have respected the land, the owners, and the hospitality offered - others over the years unfortunately have not. It is up to us to continue to respect the land and its cultural and environmental values, and the land owners and their property. By adhering to the few simple rules we can hopefully continue to use this magical area around the lake for many more years

#### DON'T FORGET:

- · If you carry it in, carry it out
- · Don't light open fires
- · Be respectful to our hosts, the land owners, and other campers
- · Ring and book ahead if required
- · Respect the land
- · Comply with all angling and boating regulations

For more information about Department of Conservation camping areas or camping sites go to: www.doc.govtn2



# History of a classic

By Mark Venman Programme Manager Field Operations n an earlier edition of *Turget Taupo*, issue 60,1 wrote about an old Lake Taupo boat that I restored and named *Classic* 

The boat wasn't getting used as much as I would have liked and the tough decision was made to sell it and so I adver tised on TradeMe. After the usual flurry of enquiring emails and low offers, one guy phoned me and explained that he was really keen to buy the boat. As the conversation developed, Matt explained that his grandfather (Bill Steele) had originally built the boat way back in 1954, solely for use on Lake Taupo. Matt had recognised the boat's unique shape on the auction photos despite its new colours and altered interior! He was very keen to get the boat back in his family and take his kids, the fourth generation

of the family, out on the sea up in the Auckland area. Matt had gone oversees prior to me purchasing the boat and on his return to NZ had wanted to buy it back from his great aunt in Motuoapa to restore it himself. Unfortunately that was when I had taken ownership of the boat but I think Matt was secretly happy that all the hard work of restoring her had already been done and so waiting a few years longer wasn't necessarily a bad thine!

After several emails, I finally met with Matt's mum and dad (Bill & Ruth) who came to Turangi to collect the boat and provide me with some old photographs and history of the boat. Classic was built in 1954 and first used the following year. Previous to this, Matt's grandfather had an old clinker dingly that later went to

Top: Classic'all shiny & new, Photo by Mark Vennan



Lake Rotoaira. Classic was built solely for use on Eake Taupo and until now had always remained in the area. It spent some time at Mototere while the family bolidayed there but spent the largest amount of time in Mottoapa when the family eventually bought a bach there in 1960. For the first 10 years, the boat was fitted with an old British Seagull outboard motor before it

> was replaced by an Evinrude outboard that a Mr Steele brought back from Toronto, Canada about 1964. The boat had never been named prior to me calling it Classic but it did have a number from when it was stored at Motuoapa marina.

Matt's grandfather worked as a builder and built houses at Hautu & Rangipo prisons. He had a workshop at the front of the Motuoapa Motels which were also built around this time.

So after 57 long years, I was glad to be able to return the boat back to the original family to enjoy once again and cherish what their grandfather and now greatgrandfather had built.

From top: Classic sanded back.

Photo by Mark Venman

Classic on the water in 1963.

Photo courtery of the family.

Classic at the marina in 1963.

Photo courtery of the family.

### Fly Girls

WOMEN'S FLY FISHING CONFERENCE

By Anna McKnight
Ranges Community Relations

If y girl' is a slang term coined in the 1990's for a party going, fun loving girl; and fun was had on Women's Fly Fishing conference held in Waitahanui in September Fifteen women attended courses over the weekend on casting techniques, fishing ethics, and filleting trout, through to a fly tying lesson in front of the rugby. It's easy finding the perfect woman round here!

Rods and how to use them were some of the courses on offer Newbies were taught the casting basics. Gary Lyttle from Fly and Gun Hunting and Fishing talked to the women abom all the different types of rods on the market and tips from the trade. The women were

impressed with the demonstration of the double handed rod which Gary explained is perfect for narrow rivers like the Binemaiaia, that have little room for a back cast Angler Christine Millward commented, "I don't want new shoes, I want one of those!"

It was neat for women to see women filleting fish and tying flies. Jeanette Taylor of llawkes Bay gave a filleting demon stration, smoking the trout to delicious perfection and handing out recipes. Wellington Fly Fisher's club member Marion Hall fishes so often, she knew she would benefit from learning the art of fly tying, and had many interested eyes on her work.





Keen eyes on the art of Mation Hall's fly tying. Photo by Anna McKnight



Fly tying in front of the rugby - the perfect woman?! Photo by Anna McKnight

As all fishing conferences should not be without him, Didymo Dave addressed important angling messages - the importance of Check Clean Dry, fishing ethics and explained the 1926 agreement in regards to Taupo fishing access and how it applies today. That afternoon three of the ladies went fishing up the Waitahanui River pleased to know the correct access paths and decked out in Check Clean Dry caps.

Networking was a valuable part of the weekend and shows that interest in a women's fly fishing group remains strong. The conference was a follow up to the successful Women's Fly Fishing Day held in March, where feedback forms were enthusiastically filled out for more more more. It was always local keen angler Marilyn Bruton's dream to have a Women's Fly Fishing group, and she made her dream come reality along with the support of a lot of women also keen to make it happen.

If you want to be on the database for future events email: marionrainbow@ xtra.co.nz.

# Taupo Fishery Advisory Commitee

By Kim Alexander/Turia
Programme Manager
Community Relations

The Taupo Fishery Advisory Committee (TFAC) is a committee established by the Conservation Act.

THE FUNCTION OF THE COMMITTEE IS TO:

- · Advocate Taupo sport fishing interests
- Facilitate between the Department of Conservation and anglers
- · To keep anglers informed on matters affecting their interests
- · Foster ethical standards of angling behaviour
- Consider and advise the department on freshwater and sport fishing matters within the Taupo District
- Make any representations that it sees fit to the Minister, or to the department or any other government agency or other organisation, on matters affecting the Taupo fishery, including national and regional policy statements, management strategies, management plans
- Liaise with New Zealand Fish and Game Council on matters of mutual interest relating to sports fish.

THE COMMITTEE IS MADE UP OF REPRESENTATIVES OF THE FOLLOWING INTERESTS:

- (a) 8 members appointed by the Minister of Conservation from persons nominated by the following organisations:
- · Advocates for the Tongariro River Inc

(Currently a representative is not formally appointed, due to a recent resignation)

- · Moruoapa Fishing and Boating Club (Mark Laing)
- · New Zealand Professional Fishing Guides' Association · (Alan Simmons)
- · Taupo Commercial Launchmens' Association (Richard Staines)
- · Taupo Fishing Club (Richard Shrimpton)
- Tongariro & Lake Taupo Angler's Club (Graham Whyman, Chairman)
- Tongariro National Trout Centre Society (Peter Baldwin)
- Waitahanui Angling Improvement Association (Dave Wood)
- (b) A person from the Niwharetoa Maori Trust Board
- (c) A person to represent national angling interests (Ian Rodger)
- (d) A person to represent New Zealand Fish and Game Council (Rob Pirkethley)
- (e) A person to represent Tongariro/Whanganui/Taranaki Conservator (Dave Lumley
- -Taupó-nujá-Tia Area Manager)

Members appointed under (a), (b) and (c) have voting rights at meetings of the committee, and the other members of the committee are entitled to speak at meetings but not to vote.

from left to right Richard Shrimpton, Mark Ling, Peter Boldwia, Ian Rodger, Alan Simmons, Rob Pikethley, Graham Whyman, and Dave Luntey. Photo by Kim Alexader-Turin

The TFAC committee



Meetings must be held at least 3 times a year It's an important opportunity for the department and these representatives to get together and discuss issues affecting the Taupo fishery.

We have a number of issues facing the Taupo fishery at the moment especially with the Taupo Sports Fishery Management Plan upon us. At the last TFAC meeting the committee passed a resolution to support research options for restoring the early run on the Tongariro River.

If you have an issue or suggestion affecting the Taupo fishery that you would like aired with the committee, it is important that you contactione of these members.

Have your say!



# Don't Water your Weeds

By David Gade
- 'Didyme Dave'
Ranger, Freshwater Pests

rior to opening day at Lake Otamangakau, a weed cordon was installed to prevent freshwa ter threats such as hornwort and egeria being introduced to the lake. Hornwort, which is an introduced weed is currently ranked New Zealand's worst submerged freshwater weed and has been present in Lake Rotoaira. Tokaanu tailrace, Lake Taupo and right through the Waikato River system for a number of years. In 2007 a raft of hornwort in Lake Rotoaira was washed up against the intake screens restricting the flow to Tokaanu power station. The result of this was a very expensive piece of machinery being installed to remove hornwort and keep the ititakes clear

For the last few years, Genesis Energy. Horizons Regional Council and the Department of Conservation have worked together to protect Lake Otamangakau from having hornwort introduced there. The reason for this being the hugely detrimental affect the weed would have on angling and the lake as a whole. There has been signage, banners, advertising, information on websites and hundreds of hours of advocacy work around the lake to get the CHECK CLEAN DRY message out there. It has been pleasing to see the reaction from most lake users; fishermen, kayakers and duck shooters who care. However the other side of the story is that there is still a group of people, who are not taking the health of the lake seriously, have been spoken to several times but quite simply just don't care. So to mitigate the risk that these people

Top: Finished weed cordon Photo by Craig Davey pose to the lake and the enjoyment of so many others, a decision was made to install a weed cordon.

The cordon is a series of floating buoys supporting a fine mesh net surrounding the boat launching ramp. With the boat access on the prevailing wind side it is designed to safeguard the lake by tripping any fragments of hornwort or egeria if they are introduced through

someone failing to CHECK CLEAN DRY.

Over the past month I have spent many hours at Iake Otamangakau explaining the weed cordon, the need for it, etc and so far everyone I have spoken to has been in favour of this method of protecting the lake. However the other side of the coin is the cost, both in the purchase, installation of the cordon and in the advocacy. It has always seemed to me

Last stitching.

Photo by Crats Davey,
Herizons Regional Council





Hornwort bloom at Lake
Whakamaru
Photo countesy of NIWA

Removing hornwort before the Rotosics intake. Photo contests of Genesis Energy that "CLEAN YOUR GEAR EVERYTIME YOUMOVEFROM ONE RIVER OR LAKE TO ANOTHER" is a very simple message. Yet daily I meet people who put their own interpretation on it or simply don't think and shift around all over the place at will without cleaning their gear and boats, with no idea of the risks they are creating for the rivers and lakes they tell me they care about.

So here's a question for you all. Have you considered the cost of non-compliance with the CHECK CLEAN DRY programme? In my view, as it is now four years since the programme started, we should have been able to get everyone engaged. I mean it's not like it's dif ficult to clean your gear. Yet despite a massive effort we haven't been able to. So while I'm still employed, there are salary costs, vehicle costs, promotion costs, lollipop costs and all the other expenditure that goes into the advocacy programme. Wouldn't it make more sense for all of us to CHECK CLEAN DRY and put that money back into the Government's coffers for another use or even better taxation cuts? Believe me, to be called into Dave Lumley's office and be told that everyone was adhering to the CHECK CLEAN DRY programme and I was no longer needed would be the greatest day of my life.

But whether that happens is up to you...





# Hilltop Predator Busters

By Mike Nicholson Taupo for Tomorrow Teacher





Top: Mike talks to the kids about whio

eptember this year was an unlucky one for animals that like to eat our local population of endangered whio (or blue duck). The reason predators on the Tongariro River in particular had much to fear, was that a group of year 7 and 8 students from Hilltop school from Taupo were on a mission That mission was too seek out. check, and reset a large number of DOC 200 traps placed alongside the Tongariro River These trap lines are an ongoing attempt to reduce the number of rats, stoats, and ferrets preying on our iconic, endangered, river dwelling specialist birds.

This group of students had been working towards achieving the William Pike Challenge award. As part of this challenge, among other things, they needed to demonstrate persistence, patience, confidence and the ability to deal with adversity over a range of demanding activities like rafting and tramping. They

also needed to participate in a 20 hour community service component. Given that many of the activities they enjoyed as part of the William Pike Challenge took place in the wonderful natural backyard' that 'faupo / Turangi has to offer, what better way to serve the community than get in involved with whio recovery efforts on the Tongariro River.

The Blue Duck Project Charitable Trust is a predator trapping regime administered by local businessman. Garth Oakden of Tongariro River Rafting. The trust is a fine example of people responding to a community challenge, that of bringing back which to the Tongariro River. It's one thing to have more than 160 predator traps set along the river; however its effectiveness depends on keen members of the public, assisted by Garth, regularly checking, re-setting and submitting their catch results to be a truly effective programme. Many members of the local community are giving their time to the



Right and below: Kids checking the traps

trust to make a positive difference, so Hilltop school were more than welcome to assist the trust and do something special for whio.

During September the Hilltop students set about checking and rebaiting many traps along the river. Each trap had to he opened, checked, re-baited and reset. Along the way Mike Nicholson from the Taupo for Tomorrow education programme joined them and much learning about whio and freshwater was also part of the days programme. The students had the chance to view a recently killed stoat and also observe some of the insect life present in the Tongariro River, an essential source of food for whio (and trout as well) with many of these invertebrate species themselves great indicators of high water quality.

The students took turns dealing with each teap and discussing how it is a real privi-

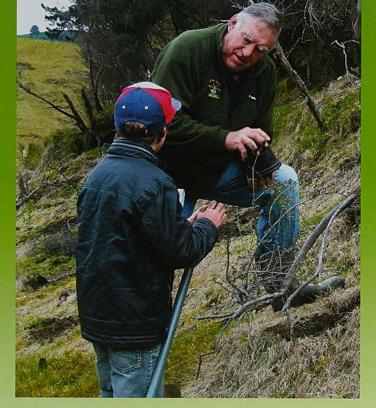
lege to have whio living and breeding so close to State Highway 1 and the township of Turangi. For every egg bait placed in a trap and every predator eliminated, the chances of whio making the Tongariro their home is increased. Given that whio are such a reliable indicator of riverine ecosystem health, seeing them living and breeding on the Tongariro River is a special goal to be achieved for all involved.

The term community service can mean a lot of different things to different people. To the studems of Hilltop school it means putting something back into the natural world they enjoy so much and supporting a truly community run trust. It meant making a difference to whio by climinating predators and thus encouraging them to once again make the Tongariro their home. Once achieved, something we should all be proud of.

Thanks Ililltop School!







Pine tree planting a native tree with young local lad Phono by Anna McKnight

# The Great Living Legends Muck In

By Anna McKnight Ranger, Community Relations 500 native trees were planted and 500 sausages eaten by volunteers during the 23<sup>rd</sup> annual native tree planting at Whakaipo Bay. This year Whakaipo Bay was honoured to be chosen as one of 17 sites nationwide to become part of the Living Legends project which took place during the Rugby World Cup 2011. Each planting celebrated a rugby legend selected

by the provincial rugby unions, with Whakaipo celebrating King Country's Sir Colin Meads.

Living Legends is a community project co-ordinating the planting of 170,000 native plants nationwide by 2015, with the first \$5,000 trees and shrubs having been planted this year. The Whakaipo Bay planting celebrated the achievements of King Country Rugby Union and All Black legend Sir Colin Meads. Sir Colin was gifted an engraved spade from Living Legends, and complete in gumboots, mucked in planting trees. The morning began with the volunteers being welcomed by a powhiri on to the planting site by Ngati Tuwharetoa. 300 locals became local legends for mucking in on the day planting trees that are part of a scenic





Team effort with a view. Photo by Anna McKnight



Girl Guides getting a tree planting lesson from DOC tanger Paul Prendergast. Photo by Anna McKnight



living legacy for the area. As the last tree was planted a torrential rain storm came off the lake to give the plants a good watering.

Whakaipo Bay has been a popular scenic and recreation reserve for Taupo locals for decades. It is a popular spot for picnics, swimming, fishing, horse riding, walking, and mountain biking. The locals are working together to preserve the area for recreation, protecting the bay from urbanisation, motorised vehicle use, and anti-social behaviour by using Taupo District Council security. The Department of Conservation support the aim to reduce nitrogen impact on the lake through a landscape plan to retire four guillies from grazing and restore the land with native vegetation.

Some of the stories of Whakaipo Bay's history have been collected on the Living Legends website. Ngati Tiwhatetoa had a pa site at the top of Tahunatara Point

where tiered gardens down the white cliffs acted as a solar panel for the gardens, which created a tropical temperature perfect for growing kumara. The Taupo Girl Guides have a camp ground at Whakaipo Bay where the girls have been gathering since 1964 and have attended all of the 23 annual tree plantings. Bike Taupo volunteers built the popular W2K mountain bike and walking track that travels 25km from Whakaipo Bay through to Kinloch. It was recently announced that this track will be extended a further 60km down the western shores of Lake Taupo as part of Nga Haerenga, New Zealand Cycle Trail project.

Whakaipo Bay is a 15 minute drive from Taupo town centre on Mapara Road, which is off Acacia Bay Road.

Keep an eye on www.livinglegends.co.nz. for 2012 planting schedule for Whakaipo Bay, and 16 other sites NZ wide.







A community conservation Project www.livinglegends.co.nz









Whanau fun at the fishout

# Angling for a Bright Future

By Kim Alexander-Turia Programme Manager Community Relations

> Photos by Kim Alexander-Turia



he highly enjoyable public children's fishing days began this year at the Tongariro National Trout Centre in April, under the guidance of the Tongariro National Trout Centre Society volunteers. Close to 2,500 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 enjoyed 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 it can be safely netted. Each trout is weighed and measured before being taken to get cleaned, filleted and hotsmoked. The pond holds fish of all sizes from 200g to weighing close to 1kg.

These larger fish require more skill to land and have proved to be particularly challenging to catch.

All the effort that goes into the day just reinforces what a great job the volunteers from the Trout Centre Society and DOC staff do and how vital we are to making the day fun and rewarding for all involved.

#### BOOKINGS

Bookings can be made by telephoning the Trout Centre volunteers on (07) 386 8085. By email: admin@troutcentre.com
By website: www.troutcentre.com
or by fax: (07) 386 8490







### Annual Sika Show 2011

By Kim Alexander Turia Programme Manager Community Relations All Photos by Kim Alexander Turia nce again DOC llaupónucá. Tia and llawkes flay area offices joined forces at the Annual Sika Show in Taupo. Every year it gets bigger and better for us with the public now searching out the DOC stand.

Every year we have a theme and this year our key message was for staff to focus on ethical recreational hunting on public conservation land. The potential for tragic outcomes from behaving in an irresponsible and illegal manner were made all too apparent with the tragic death of Rosemary Ives at Labour Weekend in 2010, and it is vital that all efforts are made to educate hunters in the inherent responsibilities and dangers when going hunting. Recent issues with hunters using public access-ways across private land to illegally enter the private land and poach deer from them is an ongoing concern for the department, and another issue we were keen to challenge hunters about.

On a more positive note the Kaweka team are involved in a fantastic project which has them live capturing wild sika in the Kaweka, fitting them with GPS tracking collars, and then releasing them to go about their usual business. The purpose of this project is to determine how time of day, weather, seasonality, population density, hunting pressure, sex, age and breeding cycles influence habitat use, dispersal and home ranges of sika in the Kaweka Forest Park The GPS collars log the position of each deer every half hour of the time it is worn by the animal, which is 1 year for hinds and 18months for stags. The collars then drop off and are collected by DOC for analysis. The information collected is expected to be of great interest to hunters, and judging by the response we had at the show they sure have backed a

Above: Judging the heads Relow: Team Sika



winner with hunters on this one!

Project leader Dan Herries had edited up an outstanding video of the live capture and release, with some awesome footage of chasing deer across the open faces of the Kaweka with net guns, and this stopped a large number of visitors in their tracks as they walked past the stand. That is often the hard bit, finding a reason for people to stop, rather than walking on by. Once that's done we get down to business, and we were abso lutely stoked by the response we got. Staff enjoyed the face to face discussions which ranged from hunting, huts, where the deer are concentrated, and the work the department does to help people get out there and do it. This is a key outcome for both areas, as hunters are an essential tool in aiding the management of feral deer in the forest parks.

Another thing we do to help attract people to the stand is ro offer the none-too-subtle art of face-painting and as usual this turned out to be a huge hit. Ihis year we had a number of choices all based on our native species, like the jew elled gecko, kiwi & male copper butter fly. With the AI. Blacks playing the Rugby World Cup semi-finals that weekend, black kiwis were a hit.

For the boys choosing from a stoat, rat, deer or a wild boar ensured a throng

of vibrant "pesky pest" faces were also visible throughout the show.

A really rewarding part of the weekend was the way staff were able to talk about the work of the department involving 1080, and its role as one of the key tools we use in our fight against pests and predators. In the years since we started attending the show we have noticed a very strong trend towards hunters having a deeper understanding of the toxin and far less of the angry and often ill-informed perspectives of the earlier years. This makes for a far more enjoyable and engaging experience for all concerned, and is very encouraging.

The show wrapped up with the prize giving Each year DOC seeks sponsorship for prizes for stags shot on public conservation land, and once again we were able to offer some pretty amazing ones. Best representative sika head shot on public conservation land was taken by Isaac Te Kahika, who won a fly-in to a DOC hut within the Kaweka or Kaimanawa Forest Park – donated by East Kaweka Helicopters. Second best representative sika head was won by John Voorend, who was awarded a new Garmin GPS spon sored by Helicopter Services BOP.

It was a great way to wrap up what was a well worthwhile but exhausting two days for staff, so roll on 2012!

Clockwise from top left:
Jewelled gecko;
Which one's wild?
Preparing for the All Black
'Kiwi' final.
Sika deer was a popultr
choice;
Male copper butterfly













### Views from Lookout Track

By Anna McKnight Ranger, Community Relations rack with views overlooking the town, Mt Pihanga, the Great Jake and anglers f.shing the Tongariro River. The Department of Conservation logged the overmature pine forest earlier this year for safety reasons. One thousand native shrubs were planted this spring by a dedicated team of locals which began the restoration of native vegetation on the Tongariro Reserve. The new multi-use track has three bench scats positioned to take in the best of the views.

The Lookout Track runs through the Tongariro River No. 2 Scenic Reserve above the Tongariro River on the true right bank immediately south of the

State Highway 1 road bridge, through to the Major Jones Bridge.

The new track adds a few more twists and turns to our local walk options. In the past Leokout Track was only accessible to walkers, but in the rebuild the stairs were removed and the track widened with climbs and descents that are suitable for mountain bikers and parents with push chairs. These changes extend the mountain bike ride on the true right to start at the SHI Bridge and go all the way through to the Red Hut Bridge. Cyclists though will have to be conscious of sharing the track with walkers and anglers crossing the track.

The local community joined in during Conservation Week to help plant the

Above: Leigh Jenkins with Zavi in his buggy enjoying the views Photo by Angela Paget



Young Charlie Hart (2 1/2yrs) enjoying his well deserved sausage after helping his great grandma to plant trees. Photoby Annu McKnight

native shrubs. Senior students of Te Kura o Hirangi planted shrubs at the beginning of the track and the local community and Taupo Conservation Corps took to the steep, slash covered slopes putting in hard labour to plant a large number of trees. It will be neat to watch the shrubs come away walking over the track in the years to come.

The decision to fell the pine trees was to remove the risk of aged trees falling into the river. If the trees had been left to fall, logs and loose soil being washed down river could have potentially threatened downstream values, recre ational activities and State Highway 1 infrastructure.

The track can be walked as a loop in either direction from the SH1 Bridge in Turangi, or from the Major Jones Bridge off Koura St.



Te Kun Mirangi and Taupo Conservation Corps proudly participating in the community planting. Photo taken by Anna McKnight

## New Faces in the Taupó-nui-á-Tia Area fishery team

There are no new faces in the Fishery but we have managed to contract two previous long serving members to assist our Fishery team and to call upon from time to time.



#### MANALIVE IT'S ERROL CUDBY

Errol is contracted part-time (supported by the Tongariro National Trout Centre Society) to the Genesis Energy Freshwater Aquarium based at the Tongariro National Trout Centre. He is assisting with day to day running of our aquarium.

Errol has a vast amount of experience with the Department including managing the Tongariro National Trout Centre from 1988 to 2006. He has previous experience with Customs Department, Marine Department, Ministry of Agriculture and Fisheries, Wildlife Service & DOC.

Errol has also run our annual staff wader training course this year and is assisting us with our Fishery dive team.

Errol helping Sierra with her wader beh while running this year's wader training course.

Photo by Ray Bond



When old mates meet up after DOC, John (right) and former Taupo Fishery staffer Notrie Ewing, with John's 14.5tb king salmon from the Hokitika River March 2010.

Photo by Pat Gibbs

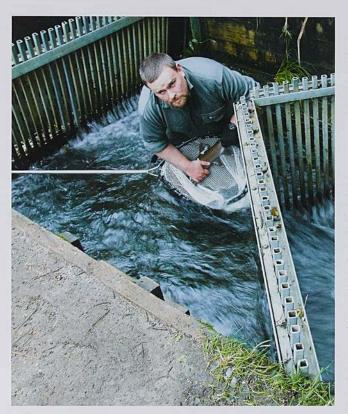
## BACK TO THE FUTURE WITH JOHN GIBBS

He needs no introduction really but John was the founding Taupo Fishery Area Manager from 1987 to 2010. John also came from the Wildlife Service

He is assisting us with the editing of Target Taupo, assisting the Taupo Sports Fishery Management Plan and management of our boat fieet and boat operator training.

The Fishery area of laupó nuiá-Tia is ludsy to have acquired two previous experienced managers to call upon.

### Fishery Farewells



John dearing the Waihukahuka trap Photo by Kim Alexander Turia

#### FAREWELL JOHN WEBB

My short 4 year tenure with the Department of Conservation has come to an entl. Since starting as a temporary fish trap operator in 2007 my constantly changing roles through Ranger, Programme Manager and Concessions Officer has kept me on my toes. Although these changes were challenging at times it gave me a broad understanding of the complexities involved with running an eco logically and socially diverse conservation estate.

Above all, the one thing that the Department of Conservation gave me was the opportunity to work and help manage something that I was very passion at about in my personal life – the Taupo Fishery: I think few people get that opportunity: As it transpired it was a very good time to get involved because when I joined DOC the Taupo Fishery was on the cusp of an unfortunate downrum – one

which would test even the best fishery managers. Although downturn is never easy it was ironically beneficial for me affording involvement with a whole range of biological, ecological and social issues that I would otherwise never have been able to address. It also gave me the opportunity to witness first hand the commitment and passion that many DOC staff have. When I began someone said to me "If we couldn't continue to pay people there would still be some DOC staff that would rarn up for work tomorrow." I largely dismissed that at the time but after a while I began to realise just how true that was

I am a forester by profession and I have now returned to the industry that I was trained in for a variety of reasons But never again will I look at the Tongariro River, going for a hunt in the Kaimanawa Ranges or driving past a DOC reserve through the same eyes I will also miss being editor of this magazine. Target Taupo in its current form is a tangible, enjoyable and educational publication that anglers can pick up and read when the lake is too rough for the boat or the river is in flood. Long may that continue.

I enjoyed my time at DOC and who knows, one day I might once again be amongst its ranks. I would certainly be proud to do so.

- Cheers Webby

## Licence Update

By Lisa Bott Ranger Business Services

Myles Brownie, the 2011

early to learn..
Photo by Stephen Sprague

winner, shows it's never too

his year's licence transition ran smoothly under the new Taupénui-á-Tia Area Office. It has been a pleasure working with our agents to supply your fishing licences and to enjoy a chat as I deliver licences to our local agents.

One of the big challenges when preparing the season fishing licence is to find the photo that captures the essence of the Taupo fishery. This season we decided to let the public provide input into the selection of the photo A competition was run where we asked the public to send in a cool photo of their fishing experience.

We had wonderful feedback; so much so, it became difficult in choosing from the large selection sent in. My fishery colleagues had much debate but we got a consensus! Not an easy task.

are currently working towards implementing a system which will allow you to purchase your licence on-line. We hope to have this up and running in the near funire.

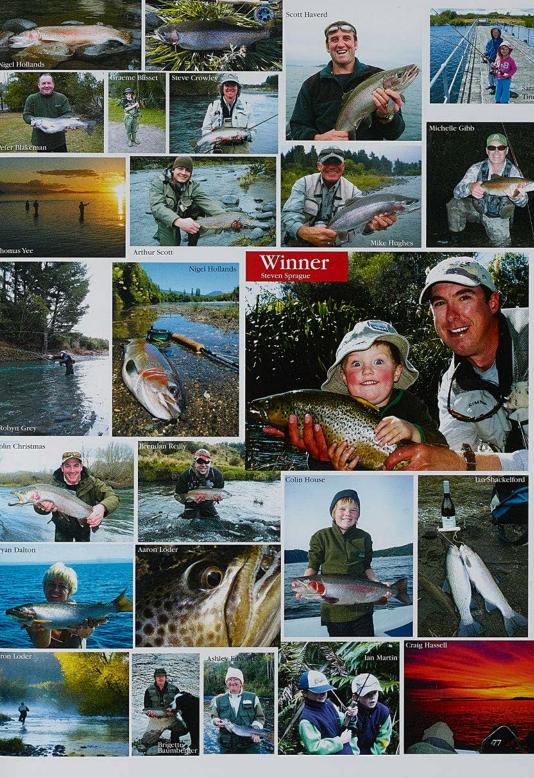
There are currently 4000 people on the self-registered Target Taupo database. If you would like to keep up with the latest in the Taupo fishery please forward your name, postal address, postal code and fishing licence number to targettaupo@xtra.co.nz lf you do not have access to a computer please call the Taupö-nuiä-Tia Area Office on 0.7 384 7143.

#### Target Taupo

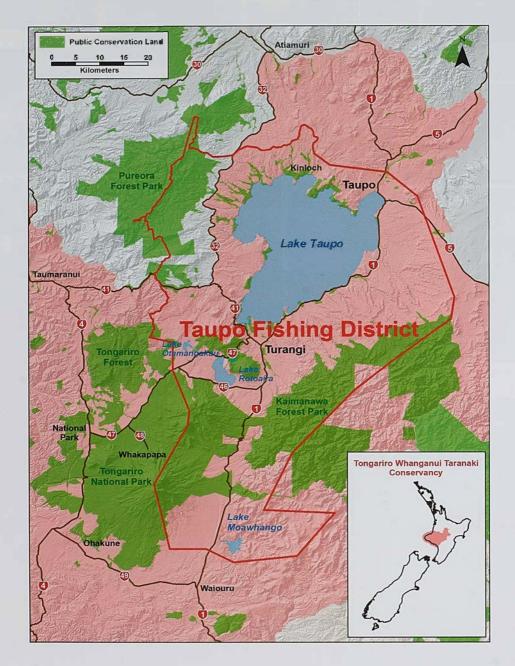
- is it worth your money?

Part of your licence fee is used to produce Target Taupo and we consider that this is an excellent publication and a great way of getting information about the fishery to you the anglers. However the cost is significant at approximately \$30,000 for 6000 copies Looking into the future we are considering options like having the magazine on-line and only producing a limited number of coffee table prints. As a licence holder what are your views on this? Please email your comments to Anna McKnight amcknight@doc.govt. nz with the heading "Target Taupo — is it worth your money?"





## Tongariro/Taupo Conservancy



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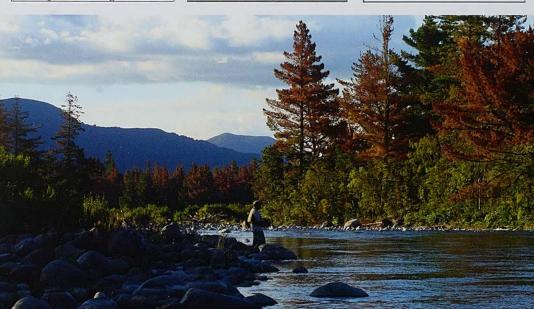
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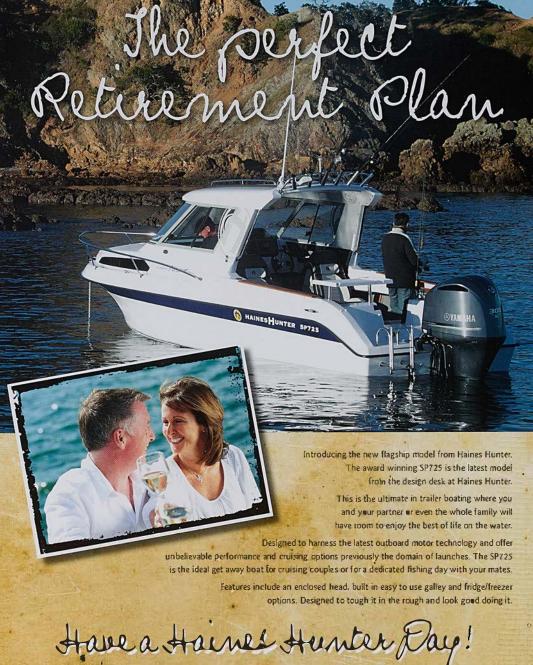


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