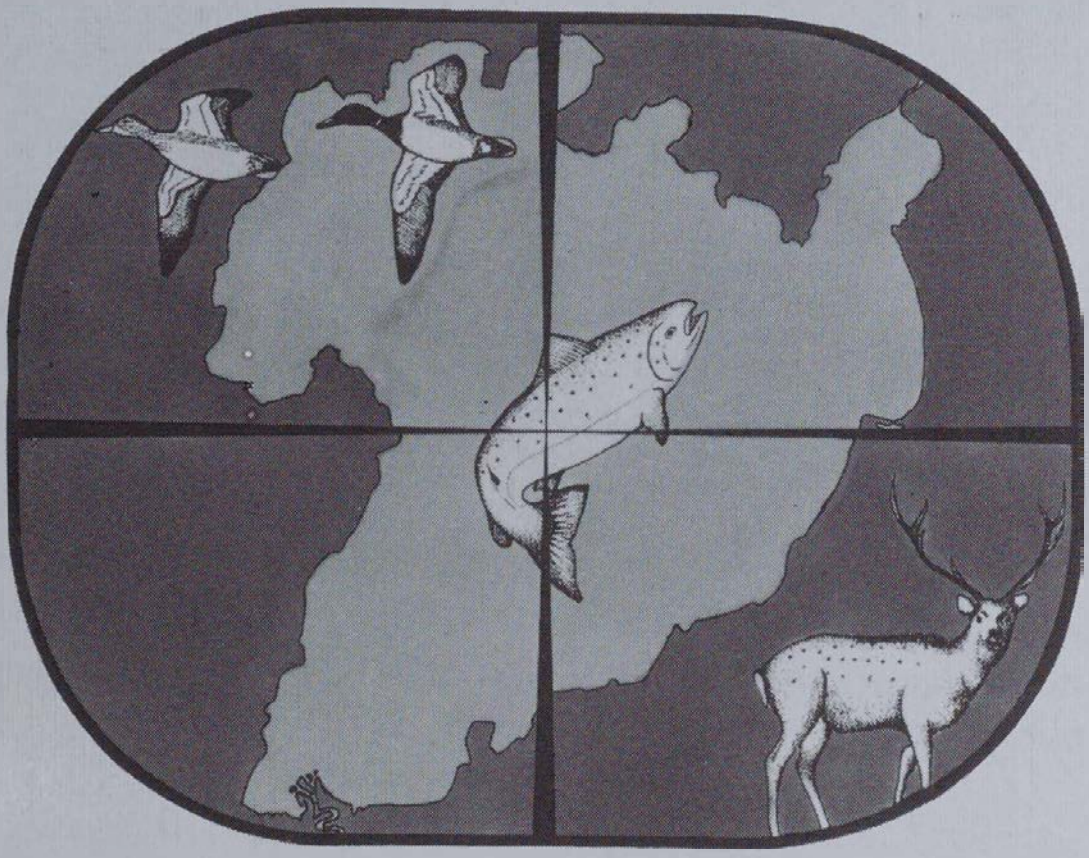
JULY 1994
ISSUE 16

TARGET TAUPO

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



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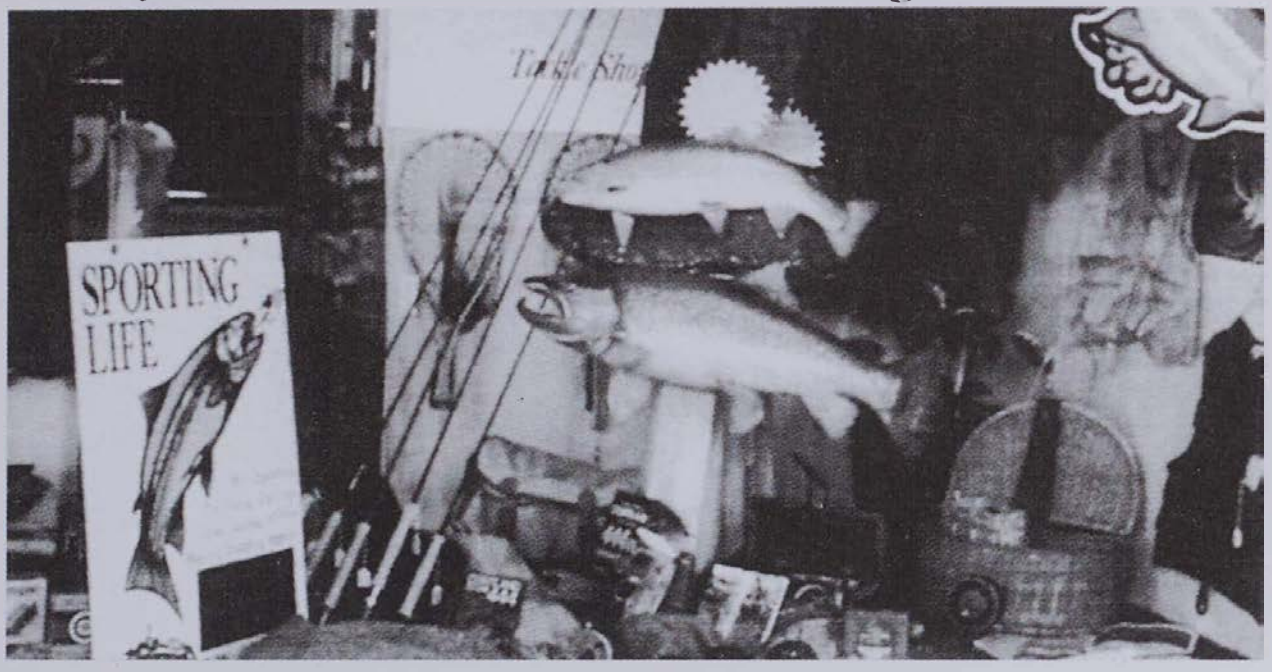

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TARGET TAUPO

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

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Department of
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Te Papa Atawhai

DEAR SPORTSPEOPLE

Another autumn has been and gone and, as so often happens, mother nature seems to have had the biggest influence on the region's hunting and fishing.

The productive growing season allowed most of the region's deer to attain excellent condition for the rut and winter. This has been supported by the outstanding quality of sika trophies entered in this year's competition. The very dry conditions which prevailed through early April followed, however, by the very damp conditions from mid-April to mid-May, seem to have restricted the harvest considerably and there will be plenty of fat deer around through winter.

The winter runs of rainbows have begun. Trapping operations run by the Department's fisheries management team have seen staff handling thousands of fish and the increasing numbers present are now starting to be reflected in anglers' bags. These early runs seem to rush through the larger rivers to the spawning grounds and the fishing has not always been easy. Hopefully July will see some big runs hold in all the rivers where we can get at them!

With increasing use of our hunting and fishing resources in recent years there appears to be an ever increasing demand for space on our rivers and in our mountains. This is beginning, at times, to create friction between users, and the problems of rubbish and other human impacts continue to grow. We have a high quality natural environment in the central North Island which is worth looking after and it is up to each and every one of us who enjoy such an environment to ensure it stays that way. Not only by thoughtful and careful use but also by making it clear to those who are less than respectful that their attitudes are not welcome here!

We hope you are able to find some success in your hunting and fishing experiences in the central North Island this winter.

Safe journeys.

Cam Speedy
Co-editor

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Please contact compliance staff
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Wayne Boness, Taupo *Phone* 025 995517 (work), 377 0112 (home)
Bryan Taylor, Turangi *Phone* 376 8607 (work), 386 6549 (home)
Sid Puia, Turangi *Phone* 386 8607 (work), 386 6700 (home)
or Conservancy Duty Officer *Phone* 386 8607 after hours.

YOUR VIEWS: The Downrigger Issue

"May I congratulate you on a fine magazine. You have established a nice balance of conservation and recreation focused articles which I always find enjoyable.

I would like to comment on the article in the March 1994 issue dealing with the resolution of the downrigger question. I declare from the outset that I strongly opposed the introduction of downriggers when I completed the questionnaire so what follows can be read in that context.

I take issue with the methodology adopted to determine anglers' preference in the matter and particularly with the two principal conclusions drawn by the Advisory Committee: (1) that the matter is not very important to anglers, and (2) that the fisheries managers should therefore decide the issue themselves.

With the greatest of respect, the evidence to hand did not entitle the Committee to conclude the matter was not important to anglers. I believe that the only reliable conclusion that can be drawn from the results of the questionnaire is that the overwhelming majority of anglers who responded strongly oppose the introduction of downriggers.

The following points should be made with respect to the interpretation of the "low" level of response. First, the mail out questionnaire required anglers to *self initiate* their response. For this type of opinion poll an 8% response rate is extremely high and a check with any reputable polling organisation would confirm this.

Face to face interviews or telephone polling produce entirely different levels of response and a suitably worded question inserted in a poll employing one of these methodologies would have accurately determined whether the issue was important or not to anglers. In the absence of such a poll the Committee and managers are not entitled to claim "the issue is not very important to most anglers" or that anglers will be "comfortable with any decision"; indeed the relatively high self initiated response level suggests the very opposite.

Second, the article acknowledges that the for (30.1%)/against (62.1%)/undecided (7.8%) ratio of the 8% who responded is likely to be representative of the angling population as a whole. ("... the breakdown of views in table two is consistent with the impressions of fisheries staff based on numerous public contacts", to quote from the article.) Again, in the absence of a more scientif-

ic poll, this has to be considered the "general wish of anglers" as defined by the management plan and I am therefore at a loss as to understand how the Committee has overridden such a clear statement of preference by imputing to the 92% who (for whatever reason) did not reply a different preferential ratio. Are you seriously suggesting that if the 92% who did not self initiate a response were now telephone polled, over half would respond as undecided, ambivalent or neutral? This is clearly not credible.

Third, the Committee should have had regard not just to the absolute number of responses but to the percentage of total angling effort represented by the responses. I suspect, admittedly without any factual evidence, that the 8% who responded might represent over 50% of total angling effort in the conservancy. If that is the case then it is reasonable to expect the Advisory Committee and managers to place additional weight on these responses and rather less on the other 92% who did not respond and who represent perhaps less than 50% of angling effort.

In sum, I think the interpretation of the response to the questionnaire is entirely flawed. The assertion "Given the lack of clear direction from anglers" is certainly not a given and the conclusion derived from it, i.e., that the managers should therefore decide the issue, is invalid.

I am not aware of the process from here but I respectfully suggest the matter be revisited in its entirety.

(Signed) **J Murray McKee**"

"With regard to the Special Report re Taupo Fishery Advisory Committee from the Department of Conservation - Issue 15, March 1994.

Back in February 1994, on behalf of 130 Scinde Anglers' Club members, I filled in the survey form which appeared in the Target Taupo and sent it back.

It is on those same members' behalf that I am writing now to express our disappointment at the outcome of this survey.

According to the figures quoted, there was a very poor response. This being the case, why should the views of those people who didn't respond have any say in the outcome?

If 224 people voted in support of downriggers, 462 persons opposed them, with 58 people undecided, surely this means that the people voted against downriggers and this should be the end of the matter.

To take the view "Angler input may well influence the managers' thinking on an issue, but will not necessarily decide it" in our opinion, states that the managers will do whatever they please, no matter what the survey outcome. So what was the point in running a survey in the first place?

Perhaps those who didn't respond knew this was the case, that is why the response was so low.

Yes, the greater majority of our members would be river fishermen and women, but we feel that as we have to abide by so many rules and regulations, i.e., hook sizes, tying materials, etc., our voices should be heard.

It appears to us that the boat fisherpersons seem to be given an unending choice of tackles and fishing methods.

We feel that using downriggers isn't a viable form of fishing, but an open slaughter of our fishery, which we really should be fostering for future generations.

(Signed) **Scinde Anglers' Club Napier Inc."**

THE EDITOR REPLIES:

In recent years there has been an increasing trend both in this fishery and in society in general to allow users a greater say in the management of their resources. In theory it's a great concept and we actively support the idea. The reality though, when we put it to the test with this survey, was that we could not be confident making a decision on the limited guidance received.

The reason we adopted the methodology we did was that we could then be confident that at least people had the information in front of them to make a considered response, one way or the other. If people don't know what something is or understand how it functions, then they are not really in a position to make such a response.

The problem with a very low response rate is that those respondents who are keen enough to take the opportunity tend to, by and large, favour a very narrow use of the fishery. This is not to take anything away from the views of those who replied but it is often not the view of the general angling community. For example, if we were to seek submissions as to whether glowbugs and the like should be made illegal I would be surprised if, with an 8% response rate, the majority were not in favour of this change. However, if I walked along the riverbank inspecting everyone's fly box I would be equally surprised if less than half held variations of glowbugs.

The bottom line is that at such a low level of response we are quite certain we would always have a majority opposed because these tend to be the people that make the effort to comment. There's not much point in deciding an issue by using a survey if only one outcome is ever likely. We might as well, whenever we get a submission suggesting some change, screw it up and throw it in the rubbish bin rather than waste time and money on a survey which will inevitably oppose the change.

Our problem as managers is that we believe there has to be a mechanism where change can potentially occur. Not always but nevertheless occasionally. However, we simply haven't the resources to carry out the sort of survey which would overcome the problems with the methodology. Anything less, as we have unfortunately come to realise, achieves very little.

Glenn Maclean
Co-Editor

AUTUMN HUNTING SUMMARY

The roar of '94 won't be remembered as one of the most outstanding on record, despite the fact that some very nice trophies were taken following what was the best summer growing season in at least ten years.

A cold snap set the red stags off on the western side of the conservancy a little earlier than usual with a bit of activity following a light early snowfall on March 21.

Only on occasional days after this, however, did any significant activity occur. This may have been due to the mild weather patterns which prevailed through autumn this year. Overnight minima of 12-13 degrees celsius don't help things at all!

This seems to certainly have been the case further east on the Kaimanawa side of the conservancy. Dry forests and warm settled weather appear to have reduced the returns for hunters until about mid April when the skies finally opened. In fact, it hasn't really stopped since! With the damper conditions and cooler temperatures the sika roar became considerably more intense after 14 April. Before this date hunters report plenty of sign but little success.

Just over 3000 hunting permits were issued for the Tongariro/Taupo Conservancy between 1 Feb and 31 May. This was up slightly on last year but still down on the average for this period. As at 24 June 477 usable hunting diaries had been received representing 15 % of the total issued. Of these diaries, just 156 (32%) recorded at least one kill (deer, pig or goat). This is the lowest proportion of successful hunters in four years, previous years being as high as 47%. Difficult hunting conditions due to the weather (very dry then very wet), seem to have played a role in the reduced kill rate, but the harsh winters of 1991 and 1992 which produced high natural mortality and poor fawn survival in some of the more isolated areas of the conservancy, will almost certainly still be contributing to the lower overall success rates.

A summary of the data received is presented in table 1. Similar levels of harvest to last year were recorded in the Recreational Hunting Area. This is the most intensively hunted part of the conservancy where recreational hunting has the greatest impact on deer numbers. Because intense hunting maintains animal numbers well below the carrying capacity of the habitat in this area, harsh winters have less of an influence on the population. Further

Area	Block\Period	Days Hunted	Encounters				Kills				Kills/Day
			Sika	Red	Pig	Goat	Sika	Red	Pig	Goat	
Kaimanawa Forest Park (excluding RHA)	All	469	279	122	3	-	42	19	1	-	0.13
	Same period last year	581	329	175	7	-	166	59	6	-	0.40
Tongariro National Park	All	215	21	153	3	-	6	40	3	-	0.23
	Same period last year	220	7	231	2	-	1	77	1	-	0.36
Tongariro Forest	All	198	-	88	3	47	-	40	2	25	0.34
	Same period last year	262	-	110	-	125	-	42	-	19	0.23
Erua Forest	All	32.5	-	16	-	11	-	8	-	8	0.49
	Same period last year	20.5	-	4	-	36	-	3	-	17	1.00
Rangitaiki Forest	All	40	24	5	-	-	10	1	-	-	0.28
	Same period last year	56.5	26	18	3	-	11	4	1	-	0.28
Lakeshore Reserves	All	7.5	-	-	-	4	-	-	-	4	0.53
Unspecified Returns	Whole Conservancy	72	-	-	-	-	1	17	-	15	0.46
Totals	**Whole Conservancy**	1717	-	-	-	-	155	128	11	52	0.20
	Same period last year	2054	-	-	-	-	303	220	15	36	0.28
Kaimanawa Recreational Hunting Area	All	679	481	15	8	-	94	3	5	-	0.15
	Same period last year	756	524	18	10	-	114	2	2	-	0.16
Total Corrected Per 1000 Hunter Days	**Whole Conservancy**	1000	-	-	-	-	91	75	7	31	-
	Same period last year	1000	-	-	-	-	148	107	8	18	-

TABLE 1 *Tongariro/Taupo Conservancy Recreational Hunting Summary February - May 1994*

to the west and south where access is not so good and the hunting conditions are a little more difficult (i.e., steep broken terrain), animal numbers are a little higher and become more influenced by habitat quality and severe climatic conditions. Harvests appear to have been well down in these areas of Kaimanawa Forest Park with an overall 65% decline in kill rate recorded this autumn for that part of the park outside the RHA. The numbers of red deer harvested from Tongariro National Park also seem well down this autumn. This is difficult to interpret as this herd sustains reasonably high hunting pressure and is generally at levels well below those that can be sustained in most areas of the park. Perhaps the lower kill rate reflects a poor roar or is related to the poor information return rate? Apart from fluctuations in the numbers of goats killed in other areas of the conservancy, kill rates are quite comparable to last year.

Despite the generally poor results of the roar, entries in the sika trophy competition were well up on last year's inaugural event. Hopefully this reflects greater support from sika hunters for the competition and means a larger proportion of sika stags shot this year made it to the measuring table. This will certainly improve the accuracy of the data obtained, helping it to be more representative of the real situation. The details of the competition are covered in a separate article on page 25.

Hunters reported deer to be in excellent condition this autumn, even in the high country. There are two likely reasons for this:

1 A great summer growing season providing plenty of good feed;

2 Fewer deer as a result of the winter die-offs of 1991 and 1992 and the lower production which resulted from this period not yet allowing the herds to recover to any degree. This will have allowed the habitat to improve a little, again helping to increase the feed available to the herds.

Good condition will help those deer that survived the hunting pressure of autumn to see the winter out. Hunters can expect higher fawn production this spring and a slight increase in numbers over the next few years as a result, provided of course that weather conditions allow high survival of next spring's fawns.

Winners of the diary prize draw for the February-May permit period were as follows:

AIR TRANSPORT WITH HELISIKA: *J Lockhart, Papakura*

AIR TRANSPORT WITH LAKELAND HELICOPTERS: *Mike Griffiths, Auckland*

AIR TRANSPORT WITH AIR CHARTER TAUPO: *Bruce Fitzgerald, Te Kuiti*

AMMO FROM NZ AMMUNITION CO LTD: *D Brown, Matamata*

SPORTS GOODS FROM FLY AND GUN (1993) LTD: *Keith Sharp, Pakuranga*

ACCOMMODATION/CAR SECURITY FROM SIKA LODGE: *D Hall, Manurewa.*

Ten hunters each receive a complimentary copy of this issue of Target Taupo.

As always, many thanks to those who provided data. For those who are awaiting results of jaws submitted over autumn, these will be with you very shortly.

If you have forgotten to send in your hunting diary for this last period we encourage you to do so, or if you know someone who hunts in this conservancy who may have some data for us, please remind them to forward it on. It isn't very useful in the glovebox of your car or in the bottom of your hunting cupboard, but on our database it will help provide a clearer picture of the significant role recreational hunters play in habitat protection in the central North Island.

Good hunting through the winter - may your barrels be warmer than the weather! ■

UPDATE ON THE TONGARIRO RIVER RESEARCH PROJECT

Trapping of the spawning run in the Whitikau Stream began full time in early January this year. The operation of this trap has been discussed in previous issues of Target Taupo but essentially involves a netting barrier stretched across the stream which is supported from a wire rope attached to a winch. In the middle of the barrier is a pen which the fish swim up into and which can be removed under high flows. A temporary screen is placed into the gap to maintain the barrier under such conditions and prevent fish getting past. However, under large freshes the complete barrier is lowered so the flow passes over the top and the trap avoids damage.

The run through the trap for the first five months of 1994 is summarised in table 2.

TABLE 2

Month	Rainbow		Brown		Total	Est. Run
	Male	Female	Male	Female		
January	67	128	2	4	201	201
February	49	108	0	0	157	157
March	115	239	2	1	357	357
April	215	303	8	4	530	530
May	369	546	114	87	1116	1500
June	323	510	94	82	1009	1500
	1138	1834	220	178	3370	4245

Total rainbow run = 2972*
Total brown run = 398*

* As mentioned occasionally the barrier must be completely lowered. Sometimes it is possible to go months without having to do this but in late May it had to be laid down four times and twice in June. On several occasions it was for only an hour or two and it was apparent few fish swam past but on the first

occasion there were several hundred fish holding below the trap which took the opportunity. The total run each month for both May and June therefore is likely to be somewhere around 1500 fish.

This is one of the problems of trying to operate a fish trap on a stream subject to flash flooding but we believe several modifications currently being made will reduce the number of fish which escape being trapped. Spare a thought for the operators who on a rainy night spend most of it standing by the trap, putting fish through until they have to remove the cage, cleaning the barrier and trying to hold the barrier up for as long as possible. Even if the water level continues to rise and the barrier must be finally lowered they can't just go to sleep for the rest of the night but must keep checking the river until they can get the barrier back up again.

Several features have been apparent in the runs already this year. Whereas large numbers of brown trout were trapped during trials in March and April last year, this year the brown run didn't arrive until early May. Similarly anglers generally found the fishing hard in April and early May yet most mornings another 10 or 20 fish were in the trap and on some days a lot more.

The average length of all fish through the trap and the largest fish measured are listed in table 3. Weights are not normally taken to reduce the handling. Some of our operators are experienced on fish traps all round New Zealand and all have commented these fish are stronger and more difficult to handle than any others they have been associated with.

TABLE 3

	Rainbow		Brown	
	Male	Female	Male	Female
Average length (mm)	542	551	589	584
Largest (mm)	700	710	800 (14 lb*)	710

* Estimated minimum weight

Such average sizes are very large for this fishery. The fish are in superb condition and given their fighting abilities it is not surprising anglers are commenting that they have lost a lot of fish this year.

As the other part of this project, the lower Tongariro trap at the Poplar Pool began operation in late June. Fish captured here are tagged with a small numbered silver band at the front of the dorsal fin and released to continue on up the river. A number should appear in the Whitikau and hatchery traps and anglers will catch others. Please check any fish you catch and if a fish is tagged send us the details outlining when and where the fish was caught and, if you have kept the fish, the tag.

Staff may also approach you on the river bank and ask to see any fish you have caught. From all this information we hope to determine the total size of the run in the Tongariro River as well as such things as how long it takes fish to run the river and under what conditions. It is also likely that we will undertake some radio tracking of these migrating trout in association with NIWA as part of their research programme for the TPD consents process (see article in 'Something Fishy').

The results should prove very interesting for managers and anglers alike. ■

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HUMAN IMPACT ON THE NATURAL ENVIRONMENT:

Is It Laziness Or Ignorance?

Getting inside the heads of those grubby individuals who share this beautiful country with us is something that managers of the natural environment, whether they be in fisheries, recreation, animal management or public education, are finding increasingly difficult these days.

As more and more people seek refuge from the hectic pace of modern life by exploring the many folds and backwaters of our forests, lakes and mountains, the very values that they seek are being destroyed. Pristine rivers, valleys and mountain ranges are becoming the target of once almost exclusively urban problems. What is most frightening is that as people's quest for wilderness grows, so too does their impact on it. Human refuse, graffiti and even arson, like a cancer, are now invading our natural environment at an alarming rate.

Protecting what little wilderness remains is a serious but delicate business. Most people will not dispute the need to preserve our wild places. But this must be balanced against society's passion for enjoying them, both passively (feeling good that there are still wild places left in the world), and actively (actually getting out there - touching them, being a part of them). It is this latter desire that creates the problem.

Aldo Leopold, who some call the father of conservation, once wrote:

"..... To be cherished, wilderness must be fondled and caressed. But once all have fondled and caressed it, there is no wilderness left to cherish.....".

This he wrote in the 1930s when America's park system was beginning to feel the strain of a burgeoning urban human population with a passion for the outdoors. Perhaps New Zealand is at a similar stage in the 1990s as we seek not only to enjoy our wilderness as a nation, but as we also encourage a hoped for three million tourists to help boost our economy.

If our natural environment is to cope better than that of our American cousins, we must learn that our fondling and caressing of wilderness must be undertak-

en with a care and respect that will ensure it remains for our children. This requires that those environmental vandals among us are educated as to the consequences of their actions.

A typical hunters' camp in the Waipakihi Valley.

One need not look too far to see such consequences. Beer cans, lunch wrap, discarded nylon, and human excrement are now commonplace on the banks of the mighty Tongariro River. The Waipakihi Valley, one of the most outstanding features of Kaimanawa Forest Park, resembles more a city tip than a wilderness hunting area, particularly after high use hunting periods such as the 'roar'.

The result of a hunting party's stay at a local hut.

Managers, in recognising the problem, have made many attempts to educate the culprits. But they have no faces, no names, no addresses. They are the invisible crowds. Those who come, exploit, and leave. But the results of their stay are there for all the world to see.

While management must take some responsibility for the consequences of human impact - for that is their job as managers of the resource - there comes a time when all who share that resource must begin to also play their part. This means not only being responsible for their own actions, but also forcing, through peer group pressure, the environmental vandals to take a more responsible attitude.

Only when all are held accountable before their peers for their impact on the natural environment will the change that is so necessary finally come. Until this happens, slowly but surely our wilderness, like that of America and countless other countries, will erode even further.

Wilderness is a diminishing resource. It cannot be re-created in the timeframes in which humans think. Nature has, over millions of years, carved out the many and varied faces of our wilderness. In a few short years we, perhaps more out of ignorance than anything else, have destroyed most of it. That which is left is now under constant pressure.

Management has an occupational and often legal responsibility to protect our natural environment. But the resource users themselves *must* start to share that responsibility. There lies the real solution.

It's up to you ! ■

SPRAYING TRIALS ON THE WHANGAMATA STREAM

The Whangamata Stream meanders towards the north-west shores of Lake Taupo, entering the lake adjacent to the Kinloch township. This stream is one of the few trout spawning streams in the Western Bays and the Department of Conservation has concerns that monkey musk weed which has become established within and along the stream margin inhibits the migration of trout up the stream.

Musk weed grows vigorously over summer forming a dense mat of stalks which completely clog the stream by late summer. This creates both a physical barrier to any early run trout or kelts returning to the lake, and also causes the stream to pond, flooding the adjacent banks.

Historically staff have spent several weeks each autumn clearing the musk by hand which is both costly and hard work for those involved. In recent years the Department, in association with Trout Unlimited, has also been planting the banks with species such as *carex* which, as they get larger, should shade the musk out. However, there is a need in the short term to come up with a more satisfactory means of controlling the musk until the planting takes effect. As a consequence, a resource consent was applied for the use of a herbicide to control this exotic weed and a trial undertaken in February this year.

The spraying involved a mixture of 100 ml Roundup, 20 ml Pulse and 10 litres of water and was applied to the tops of the monkey musk by DOC staff using a knapsack sprayer. For the first trial only the bottom third of the Whangamata Stream was sprayed.

Water quality monitoring was carried out before, during and after the spraying programme to ensure that the stream was not affected in any way. It was thought that the most significant effect, if any, might be a lowering of the dissolved oxygen levels to below critical levels for the juvenile trout present. This could be a consequence of the increase in biological activity associated with the decomposition of the dying musk week.

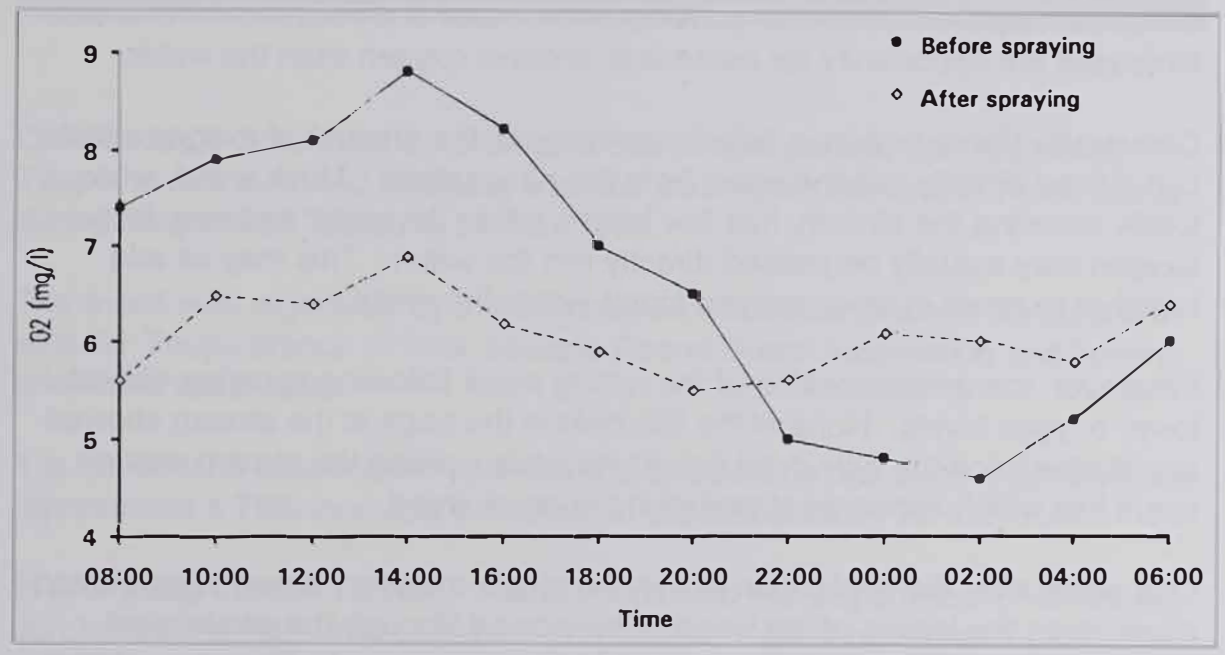
Temperature and dissolved oxygen were measured with a water analyzer every two hours over a 24-hour period at sites above and below the area sprayed. This was done prior to spraying and again one week after the

application. As well, temperature and dissolved oxygen were measured nightly at 10 pm for 2-1/2 weeks following spraying. 10 pm corresponds to when dissolved oxygen levels which fluctuate during the day are about their lowest, hence most critical. Trout fry and fingerlings were also caught from the stream and kept in specially made cages which were placed in strategic spots below, in and above the spray site. Further to this, staff walked the entire stream four times after the spraying.

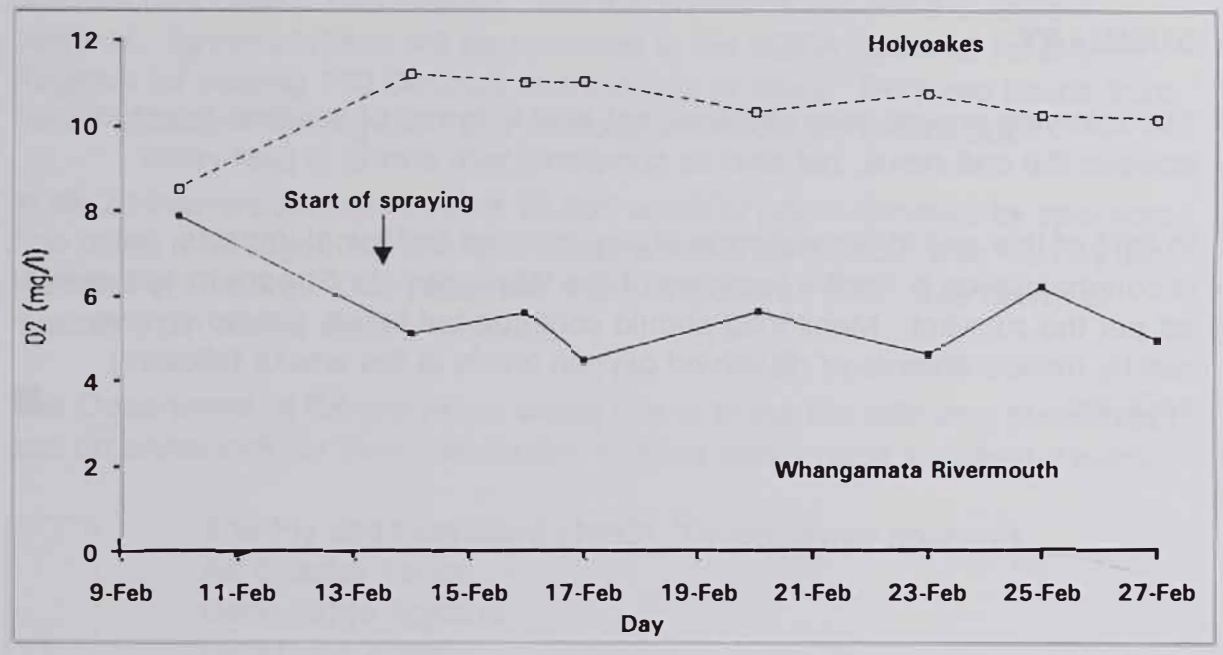
Conservation Officer Bonzo Ngamotu braves the dark to take a 10 pm measurement of the temperature and dissolved oxygen levels in the Whangamata Stream.

The graphs opposite summarise the dissolved oxygen levels recorded. The readings are in parts per million. Graph 1 shows levels recorded over a 24-hour period and graph 2 shows records over a range of continuous days in February. It is evident from graph 2 that prior concerns over dissolved oxygen levels did not eventuate.

Surprisingly, dissolved oxygen levels measured below the musk weed prior to spraying were lower than the corresponding measurements taken above. We would have expected, given the mass of musk weed in the stream undergoing photosynthesis, that the reverse would have occurred.



GRAPH 1: *24-hour variation of oxygen concentration before and after spraying at the Whangamata River mouth, February 1994.*



GRAPH 2: *10 pm concentration of oxygen at two different sites during February 1994.*

Perhaps what happens is that the amount of decomposition increases in this zone brought about by the entrapment of dead organic material drifting down the stream by the musk. The ponding of the water and reduction in flow also increases the opportunity for bacteria to remove oxygen from the water.

Conversely the reduction in turbulence reduces the amount of oxygen which can diffuse directly into the water from the atmosphere. Musk weed, while totally covering the stream, has few leaves within the water and very little oxygen may actually be passed directly into the water. This may all add together to result in lower oxygen levels within the musk.

Whatever, the decomposition of the rotting musk following spraying did not lower oxygen levels. None of the fish held in the traps in the stream showed any ill effect and the only dead fish found while walking the stream was a spent kelt which appeared stranded in the musk weed.

One week after the application of the chemicals a distinct brown tinge started showing on the leaves of the weed. This spread through the whole plant, including the stalks and root systems which were covered with water. Within two weeks most of the plant material above the water had disappeared though many stalks remained in the stream. Finally, after a month the die down was complete and the lower Whangamata Stream cleared completely of any monkey musk.

SUMMARY

The spraying proved very effective, not only in terms of the time spent to achieve the end result, but also as compared with efforts in past years.

In light of this and in the absence of any adverse biological impacts, our recommendation is for the spraying of the Whangamata Stream to continue as per the consent. Monitoring should continue but needs only to involve nightly measurements of dissolved oxygen levels in the weeks following spraying. ■

1994 SIKA TROPHY COMPETITION

On Monday 6 June 1994 an estimated 500 people packed the Spa Hotel, Taupo, to see over 140 sika stag trophies taken from the central North Island during the period 1 March to 31 May 1994.

The event was organised by the Department of Conservation in conjunction with the Taupo branch of New Zealand Deerstalkers' Association and hunting orientated businesses.

It is the second consecutive year that the competition has been organised and represented a 75% increase in entries on the first event.

In promoting the central North Island's sika herd the Department of Conservation hopes the high level of habitat protection provided by recreational hunting on conservation lands in the region will be maintained or even enhanced. From a hunter's perspective, the collection of trophy data will provide better information on the herd, which is considered to be one of the finest in terms of trophy production anywhere in the world.

The 142 trophies measured on Queen's Birthday weekend included 65 eight pointers (the classic sika trophy). The top 10 heads are listed in table 4, overleaf. Seven of these will be recorded in the NZDA National Trophy Register for scoring 170 Douglas score points or more. Only two heads from the 86 measured during the 1993 competition made the record book.

In all, 21 hunters shared in some $6,000 worth of prizes donated by sponsors. Top prize, a Savage .243 rifle and scope worth over $1,500, was won by Jim Marshall of Matiere. This prize, like most of those on offer, was drawn at random from all the entries received.

The Department of Conservation would like to thank the following businesses and organisations for their contribution to what was a most successful event:

The Fly and Gun Shop (1993), Taupo (major sponsor)
Air Charter Taupo
Back Ridge Apparel
Big Game Artistry
Custom Cartridges
Helisika
Huntech Outdoor Clothing

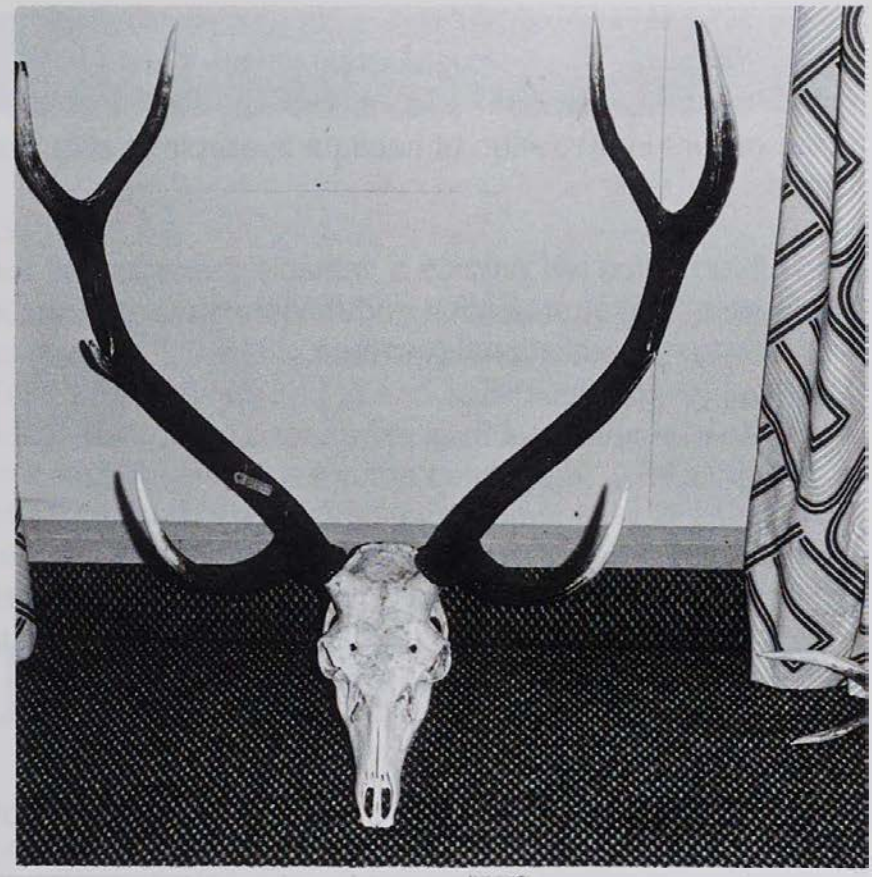
Kilwell Sports
Landcare Research NZ
Lakeland FM
Lake Taupo Marketing Advisory Board
NZ Ammunition Company
NZ Deerstalkers' Association
Outdoor Living Sportslink
Richard Abrahams (Taxidermist)
Rod and Rifle Magazine
Sika Country Taxidermy
Spa Hotel, Taupo
Sporting Life, Turangi
T.Q. Trading.

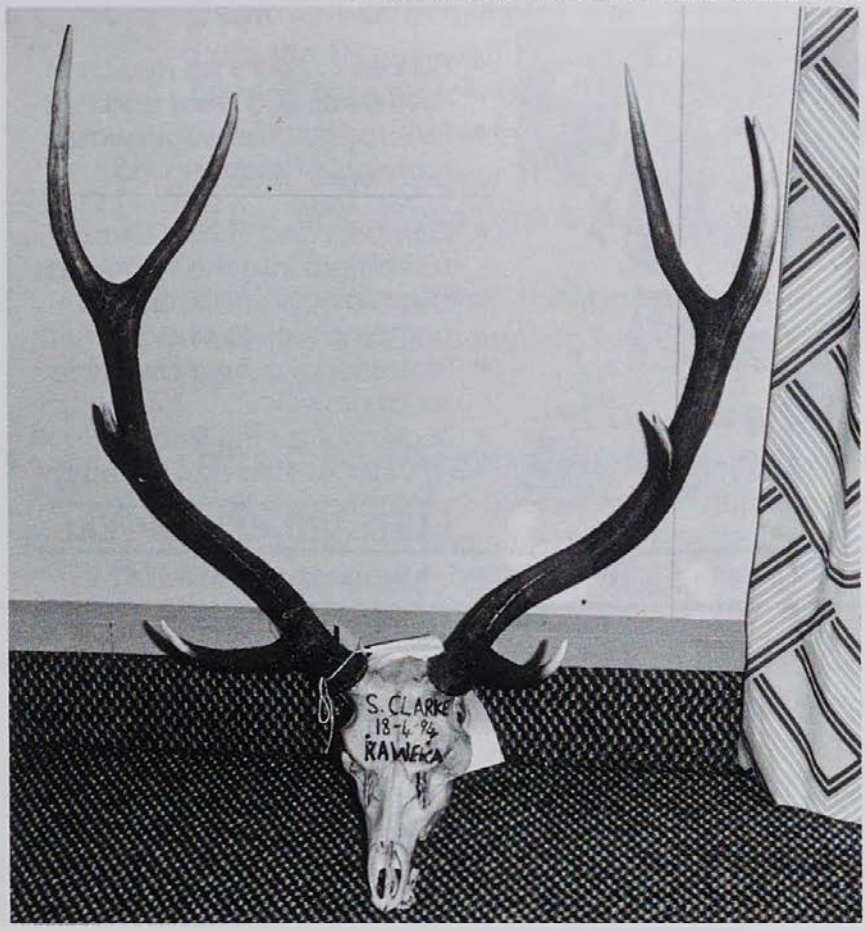
Thanks also to all those hunters who entered their heads. Data relating to your trophies will be forwarded as soon as analysis of the jaws is complete.

Hunter	Location	No. of Points	Douglas Score
Bruce Bates	Kaweka	8	$213^{1}/_{8}$ (hybrid)
Steve Clark	Boyd	8	$191^{2}/_{8}$
Harvey Karaitiana	Lake Taupo Forest	12	187
Mark Gabb	Boyd	8	$180^{7}/_{8}$
Bruce Bennett	Waiouru (army land)	8	$176^{2}/_{8}$
Gavin Sears	Whitikau Stream	8	176
Brendan Dobbyn	Tauranga-Taupo River	8	171
Graham Brebner	Waipakihi River	10	$169^{7}/_{8}$
Robert Pol	Manson	9	169
Glen Able	Ripia	8	$168^{7}/_{8}$

TABLE 4: *Top ten heads, 1994 Sika Trophy Competition.*

The biggest head entered in the competition this year. A hybrid scoring 213-1/8 DS shot by Bruce Bates.





The head that won the 1994 sika trophy competiton, shot by Steve Clark - 191 DS.

There will be well over 200 data sets to provide information about sika trophy production once these results are available. This data base will help identify where the better heads are found and why such variable quality of sika trophies occurs in the range of habitats available to sika deer in the central North Island.

Such information will provide a valuable management tool for both those involved in habitat protection and those with an interest in the management of sika deer as a recreational resource. ■

BITZ 'N' PIECES

RANGITIKEI ACCESS

The Tongariro/Taupo Conservation Board has endorsed recommendations to open helicopter access to four sites within the Rangitikei Remote Experience Zone of Kaimanawa Forest Park during spring and early summer this year. This will allow recreational hunters an opportunity to reduce deer numbers which are impacting on beech forest values in the catchment. The sites will be available by special permit from Saturday 29 November 1994 to Sunday 22 January 1995. One party will be permitted at each site at any one time. Hunters wishing to utilise this opportunity can book via the Department of Conservation's Turangi office from Monday 3 October. No bookings will be taken before this date (the first working day of the October-January hunting permit period).

The four sites are:

1 **Ecology exclosure plot site** - 3 hours walk up Ecology Stream from the Rangitikei Junction. This site provides mostly bush hunting in mountain beech for mainly sika deer. There are no river flats but the extensive forested river terrace country is heavily used by deer at this time of year.There is a one-hour walk to the tops for good summer red deer hunting.

2 **Ecology/Rangitikei Junction** - This site provides a mixture of river flat and bush hunting for red and sika deer. A one-hour walk to the tops.

3 **Trick Creek/Rangitikei Junction** - Provides a mixture of open river flats, forested river terraces, manuka and beech forest hunting for red and sika deer. This was the most productive block in the 1993 spring trial period.

4 **Otamateanui/Makomiko Junction** - This is a *steep* beech forested catchment with no river flats or terrace country. It provides a mixture of red and sika deer. One-hour to the tops for some very good summer red deer hunting.

Special conditions will apply to the use of these sites in recognition of the outstanding wilderness values of the area.

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FEDERAL PRODUCT LIST - March 1994

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No 711	.22 Long Rifle (Champion Standard Velocity) 40 gr Solid
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22250A	22-250 Remington 55 gr Soft Point
243A	243 Winchester 80 gr Soft Point
243B	243 Winchester 100 gr Soft Point
6B	6mm Remington 100 gr Soft Point
2506B	25-06 Remington 117 gr Soft Point
270A	270 Winchester 130 gr Hi Shok Soft Point
270B	270 Winchester 150 gr Hi Shok Soft Point
280B	280 Remington 150 gr Hi Shok Soft Point
7B	7mm Mauser 140 gr Hi Shok Soft Point
7RA	7mm Remington Magnum 150 gr Hi Shok Soft Point
30CA	30 Carbine 110 gr Hi Shok Round Nose Soft Point
308A	308 Winchester 150 gr Hi Shok Soft Point
308B	308 Winchester 180 gr Hi Shok Soft Point
3006A	30-06 Springfield 150 gr Hi Shok Soft Point
3006B	30-06 Springfield 180 gr Hi Shok Soft Point
76239B	7.62 x 39 Russian 123 gr Soft Point
3030A	3030 Winchester 150 gr Hi Shok Soft Point
3030B	3030 Winchester 170 gr Hi Shok Soft Point
3030C	3030 Winchester 125 gr Hollow Point
300WB	300 Winchester Magnum 180 gr Hi Shok Soft Point
303A	303 British 180 gr Hi Shok Soft Point
303B	303 British 150 gr Hi Shok Soft Point
8A	8mm Mauser 170 gr Hi Shok Soft Point
32A	32 Winchester Special 170 gr Hi Shok Soft Point
375A	375 H&H Magnum 270 gr Hi Shok Soft Point

RIFLED SLUG and BUCKSHOT

F412RS	410 gauge 2 1/2" 1/5 oz Rifled Slug
F203RS	20 gauge 2 3/4" 3/4oz Rifled Slug
F127RS	12 gauge 2 3/4" 1 oz Rifled Slug
F127SS	New 12 gauge 2 3/4" 1 oz Sabot Slug
F130RS	12 gauge 2 3/4" 1 1/4" oz Rifled Slug
F203BS	20 gauge 2 3/4" 3 buck 20 Pellets
F130BS	12 gauge 2 3/4" 00 buck 12 Pellets
F???BS	12 gauge 2 3/4" 4 buck 34 Pellets

Note: all buckshot loads are plastic buffered

UNPRIMED CASES and WADS

Federal 20S1	20 gauge 7/8 and 1oz loads all shells
Federal 12S3	12 gauge Gold Medal wads, 1 1/8 oz loads
Federal 12S4	12 gauge Gold Medal wads, 11/4 oz loads

PREMIUM RIFLE AMMUNITION

P223E	223 Remington loaded with Sierra 55 gr H.P.B.T.
P223V	223 Remington 40 gr Hollow Point Varmint
P2250B	22-250 Remington loaded with Sierra 55 gr H.P.B.T.
P243D	243 Winchester loaded wit4h Sierra 85 gr H.P.B.T.
P243C	243 Winchester loaded with Sierra 100 gr SBT
P243E	243 Winchester loaded with Nosler 100 gr Partition
P257B	New 257 Roberts + P loaded with 120 gr Nosler Partition
P6555A	New 6.5 x 55 Swedish loaded with 140 gr Nosler Partition
P270C	270 Winchester loaded with Sierra 150 gr B.T.S.P.
P270D	270 Winchester loaded with Sierra 130 gr B.T.S.P.
P708A	7mm 08 loaded with Nosler 140 gr Partition
P764A	New 7 x 64 Brenneke loaded with 160 gr Nosler Partition
P308C	308 Winchester loaded with Sierra 165 gr B.T.S.P.
P3006G	30-06 Springfield loaded with Sierra 150 gr B.T.S.P.
P300WD2	300 Win Magnum loaded with 180 gr Nosler Partition

AMERICAN EAGLE AMMUNITION

AE22	.22 Long Rifle 38 gr copper plated Hollow Point
AE306N	30-06 Springfield 150 gr F.M.J.B.T.
A76239A	7.62 x 39 Russian 124 gr F.M.J.
AE223	223 Remington 55 gr F.M.J.B.T.
AE308D	308 Winchester 150 gr F.M.J.B.T.
AE38B	38 Special 158 gr Lead Round Nose
AE357A	357 Magnum 158 gr Jacketed Soft Point
AE44A	44 Magnum 240 gr Jacketed Hollow Point
AE9AP	9mm Luger 124 gr Full Metal Jacket
AE40	40 S&W 180 gr High Antimony Lead

PISTOL AMMUNTION

32HRA	Magnum 95 gr Lead Wadcutter
380BP	380 Auto 90 gr Hi Shok Jacketed Hollow Point
9BP	9mm Luger 115 gr Jacketed Hollow Point
38B	38 Special 158 gr Lead Round Nose
357B	357 Magnum 125 gr Jacketed Hollow Point
357E	357 Magnum 158 gr Jacketed Hollow Point
357G	357 180 gr Jacketed Hollow Point
40SWA	40 S&W 180 gr Jacketed Hollow Point
44A	44 Magnum 240 gr Jacketed Hollow Point
A44B20	44 Magnum 180 gr Jacketed Hollow Point
44SA	44 S&W Special 200 gr Lead SW Hollow Point
45C	45 Automatic 185 gr Jacketed Hollow Point

SHOTGUN AMMUNITION

H412-6	410 gauge 2 1/2" 1/2oz 5 Shot NZ
H413-5	410g 3" 11/16oz 4 Shot NZ
H202-7.5	20 gauge 2 3/4" 1 oz 7 1/2 Shot NZ Skeet Load
H204-5	20 gauge 2 3/4" 1 oz 4 Shot NZ
F207-4	20 gauge 3" Magnum 11/4" oz 3 Shot NZ
H123-6	12g 2 3/4" 1 1/8oz 5 Shot NZ
H126-5	12 gauge 2 3/4" 11/4" oz Load 4 Shot NZ
F131-4	12 gauge 3" Magnum 1 7/8 oz Load 3 Shot NZ

P416A	416 Rigby loaded with 410 gr Soft Point
P416B	416 Rigby loaded with 410 gr F.M.J.
P458A	458 Win Magnum loaded with 350 gr Soft Point
P458C	458 Win Magnum loaded with 500 gr Solid
P470A	470 Nitro Express loaded with 500 gr Soft Point

PREMIUM CENTREFIRE MATCH RIFLE CARTRIDGES

P223M	223 Remington loaded with 69 gr Sierra H.P.B.T. Match
P308M	308 Winchester loaded with 168 gr Sierra H.P.B.T. Match

PREMIUM AMMUNITION PISTOL

P9HS2	9mm Luger loaded with 147 gr Hydra Shok

PREMIUM AMMUNITION SHOTGUN

P158	12 gauge 3" Magnum 1 7/8 load copper plated 5 shot
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No 100	Small Pistol
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No 215	Large Magnum Rifle
No 205M	Small Rifle Match
No 210M	Large Rifle Match
No 209	Shotshell, all gauges

Trade Enquiries: New Zealand Ammunition Company
PO Box 31-096, Lower Hutt

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PERMIT RETURNS

Thank you to all those hunters who continue to submit hunting diaries documenting the hunting they undertake on Department of Conservation lands. The information provided in this format is a valuable supplement to data obtained from the deer jaws provided by many hunters, and vegetation (habitat) monitoring data collected by staff. This information helps managers understand the biological interactions between native forest, deer and hunters.

A number of hunting diaries received, however, have incomplete information which reduces the value of the data which can be obtained from them, e.g., some hunters, when they are unsuccessful, just put "nil return". From a manager's perspective it is just as important to know where you hunted and how much hunting you did, as it is to know what you saw and/or killed. Not so we can tell everyone about your favourite spot, but so we can relate your hunting effort and success to the specific population (and habitat). The more information you provide the better. We don't need to know exactly where you hunt, just the general area will be fine, but comments such as the condition of the bush or the deer, the bird life or the fact that you saw more or less sign last year are all very valuable to management.

Please fill out your hunting diaries as completely and accurately as you can, and if you can convince your mates to do the same, the quality of our data will be even better. Incomplete data is a major frustration for managers, but you *can* help!

DOGS AND DEER HUNTING

Comments have again been received this year about local hunters who use dogs to chase deer out of the manuka onto the open river flats and terraces in the upper Ngaruroro catchment around Boyd Lodge, where they are shot using semi-automatic weapons.

We have tried to answer your specific letters where possible, however many comments were made on hunting diaries and it has not been possible to answer all of these. We apologise for this.

The hunters involved have adopted a method of hunting that is very effective in the type of habitat which occurs in this part of the Kaimanawas. They have permits to take their dogs and firearms on to conservation lands, and are therefore operating within the law. In granting such permission, the Department of Conservation is not in a position to say how these hunting tools might be utilised to harvest deer, so long as they are used within the conditions printed on the permit.

Other than banning all dogs and all semi-automatic weapons, it would be very difficult to stop this method of deer hunting. Banning all dogs would disadvantage those who rely on pointer or finder type animals.

The Department of Conservation encourages hunters to utilise the sika deer resource on conservation land in the central North Island which helps protect the natural habitats from over-grazing. When some enterprising hunters find a new and very successful means of harvesting deer, many other hunters are discouraged. Management must therefore look at the longer term impacts of such methods on the deer, on the habitat and on hunting patterns generally. There is no easy answer to this issue, but hunters can be sure the Department is monitoring the situation. Please continue to put your views before us.

POSSUM CONTROL OPERATIONS - WINTER 1994

This year Environment Waikato, with the support of the Department of Conservation, will be undertaking three major Animal Health Board-sponsored possum control operations in the Tongariro/Taupo Conservancy. These operations are aimed primarily at controlling Bovine Tuberculosis (Tb) in domestic cattle and deer herds by reducing the densities of feral animals such as possums, deer, pigs and mustelids, which act as vectors for transmission of the disease. However, they will also have significant benefits in terms of native forest conservation. The three operations are as follows:

1 **April 1994** - Lake Taupo lakeshore reserves (approximately 8,000 hectares) from Rangatira Point to Waikino on the western bays. This operation was undertaken with 1080-impregnated carrot bait sown by helicopter.

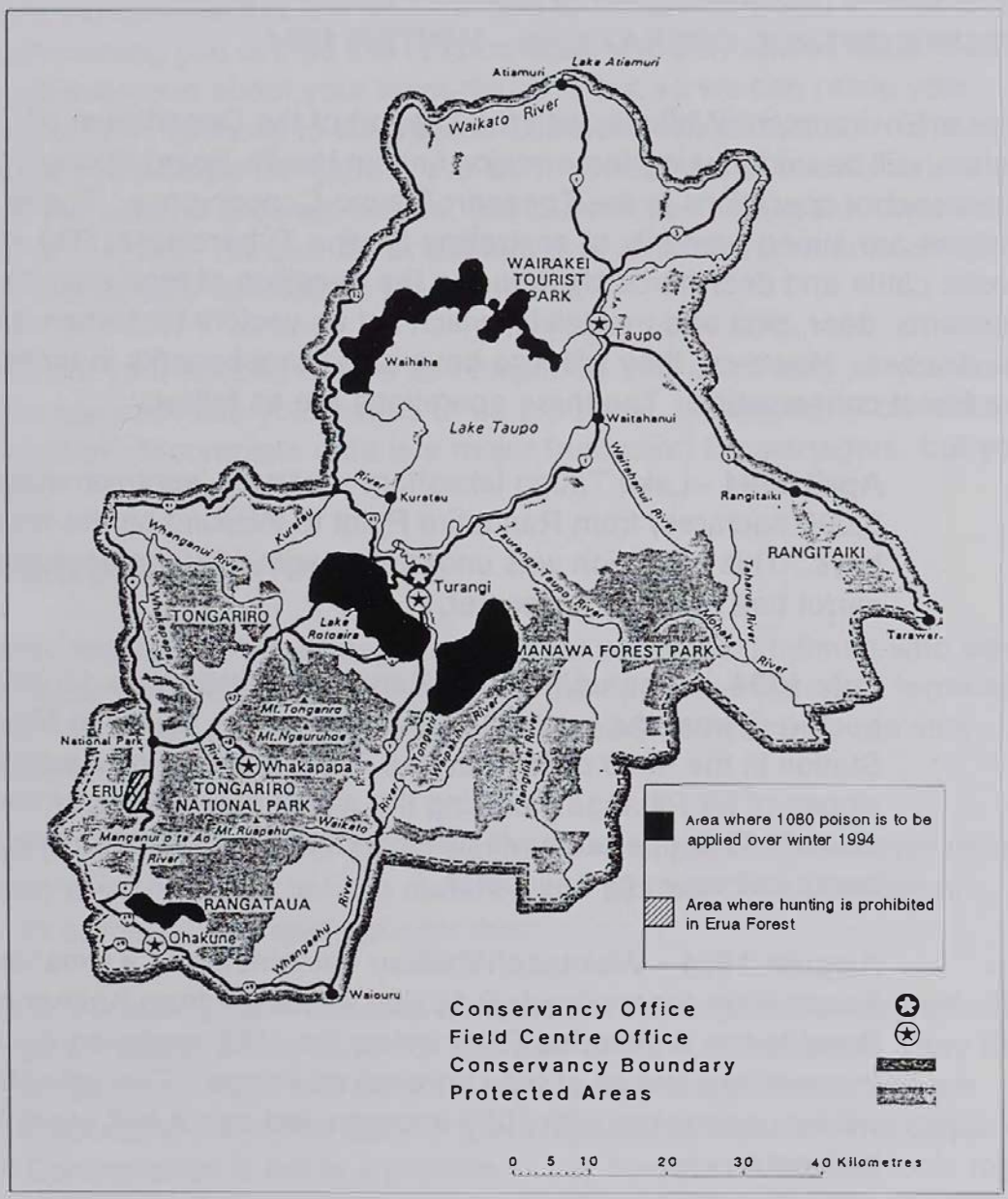
2 **July 1994** - Kuharua/Pihanga Range (approximately 11,000 hectares) from the western edge of the range adjoining Moerangi Station in the head of the Kuratau River to the lower eastern slopes of Mt Pihanga including the whole of the Kakaramea/Tihia massif. This operation will be undertaken with 1080-impregnated carrot bait sown by helicopter.

3 **August 1994** - Waiotaka/Whitikau catchments of Kaimanawa Forest Park (approximately 10,000 hectares) from Kaimanawa Road to the Waimarino River below the 1000-metre contour on the northern slopes of the Umukarikari Range. This operation will be undertaken with 1080-impregnated carrot bait sown by helicopter.

The Department of Conservation, in conjunction with the Manawatu-Wanganui Regional Council, is also involved in a possum control operation over some 2900 hectares of forest near Ohakune. This operation is aimed at reducing possum numbers in the remnant northern rata/podocarp/hardwood forests on the southern boundary of Tongariro National Park. Some adjoining private forest is also being treated where damage to crops is occurring.

This operation involves 2300 hectares of aerially applied 1080 pellet baits (5kg/ha) and approximately 600 hectares of ground trapping. It begins in late June and will be complete by late August.

All operational areas are shown on the map below.



TONGARIRO TAUPO CONSERVANCY

In addition to these programmes, both Environment Waikato and the Manawatu-Wanganui Regional Council will be involved in maintenance control operations along bush-pasture margins around the conservancy.

Enquire at our Turangi office if you require further information and take heed of any warning signs found on hunting blocks.

ERUA HUNTING PROHIBITION

At the request of harvest contractors removing the exotic tree stands in the Erua Forest area, hunting is prohibited between Erua Road and State Highway 4 from Erua Road south to the Makatote gorge, until further notice (as shown on map opposite). Please respect this prohibition.

CASCADE HUT

This winter, weather permitting, in addition to normal maintenance of Boyd, Waipakihi and Cascade huts, field centre staff will undertake an upgrade of Cascade Hut.

Cascade, built by the Forest Service in 1964 for departmental animal control operations, was known in its earlier days as "Dunkirk" due to the fact that it 'landed' in the wrong place. The hut should have been located further downstream in the Tauranga-Taupo where it would have received substantially more sun. The present hut site receives little sun and the surrounding beech forest has grown over the past 30 years to make it quite a damp shady location. Ideally we would like to re-locate the hut to a better site down river, but to do so would place it closer to the boundary of the adjoining private land, probably resulting in further trespass problems for the adjoining owners.

We have decided, therefore, to refurbish the hut where it is and by careful removal of two or three trees to provide more sun on the site. The existing wood porch will be removed and the hut interior extended to the porch roof line. The existing open fireplace will be removed and a porch and deck will be added on to the new 'front' of the hut (the side facing the Tauranga-Taupo River), aluminium windows will replace the old wooden windows, a wood/coal stove will be installed, a water tank and sink unit will be provided and the hut interior will be fully lined and insulated. The hut exterior will be repainted and a new toilet provided.

Hunters should note that firewood will remain a problem at this hut, due to the majority of available dead trees being red beech which does not burn well unless perfectly dry, so you are advised to carry a gas cooker with you. ■

TONGARIRO RIVER FLOWS

Items in the July and November issues of Target Taupo last year outlined progress in negotiations with Electricity Corporation (ECNZ) over flows in the lower Tongariro River.

The rules which govern the operation of the Tongariro Power Development Scheme (TPD) impose constraints in three key areas of the Tongariro River catchment. These involve minimum flows below Poutu Intake and Poutu Dam and a daily mean flow at Turangi (see figure 1).

Before analysing these flows it is important to understand the difference between minimum and daily mean flows. A minimum is just that - the lowest level that the flow may be allowed to fall unless the natural flow (i.e., without the influence of TPD) would have been less. A daily mean flow is the average flow at a given point over a 24 hour period, in this case measured at 15 minute intervals.

In theory there could be no flow in the river at all for say, half the day, providing the flow was at least double the mean for the remainder of the day. In practise this is unlikely to happen but the potential for a very unstable flow pattern exists.

Flows at Poutu Intake can only be altered between 11 pm and 2 am to prevent surges endangering anglers in the lower river. If ECNZ overestimate predicted inflows they must wait 24 hours to make a correction to the Poutu Intake gate setting. This leads to unnaturally low flows in the lower river, especially in wet weather.

Ideally, a constant gate setting at Poutu Intake would virtually eliminate these aberrations and provide natural variations and improved rearing habitat for young trout.

Presently, much of the "top up" water needed to maintain the Turangi mean daily flow has been released into the system from the Poutu Dam on Lake Rotoaira. This is for operational reasons at Poutu Intake and Tokaanu power station. The consequence though is that flows of about twice the natural size are released down the Poutu River in dry weather. Conversely, very low flows are discharged in wet periods. This has negative impacts on trout spawning and rearing.

Over the last two years the need to generate more electricity has led ECNZ to operate the scheme much closer to the minimum flow rules. In keeping with the spirit of the resource consent negotiations DOC has requested the corporation to return flows below Poutu Intake to the previous status quo levels until final flows are negotiated through the consent process.

While our intention has been to improve conditions for trout spawning and rearing and for angling, this move has also been strongly supported by rafting and canoeing interests.

After prolonged negotiations ECNZ have proposed an interim change that would increase the flow below Poutu Intake to a constant 16 cumecs, except during floods. The Turangi daily mean would be changed to a minimum of 22 cumecs and Poutu Dam discharge would run close to the present minimum of 0.6 cumecs.

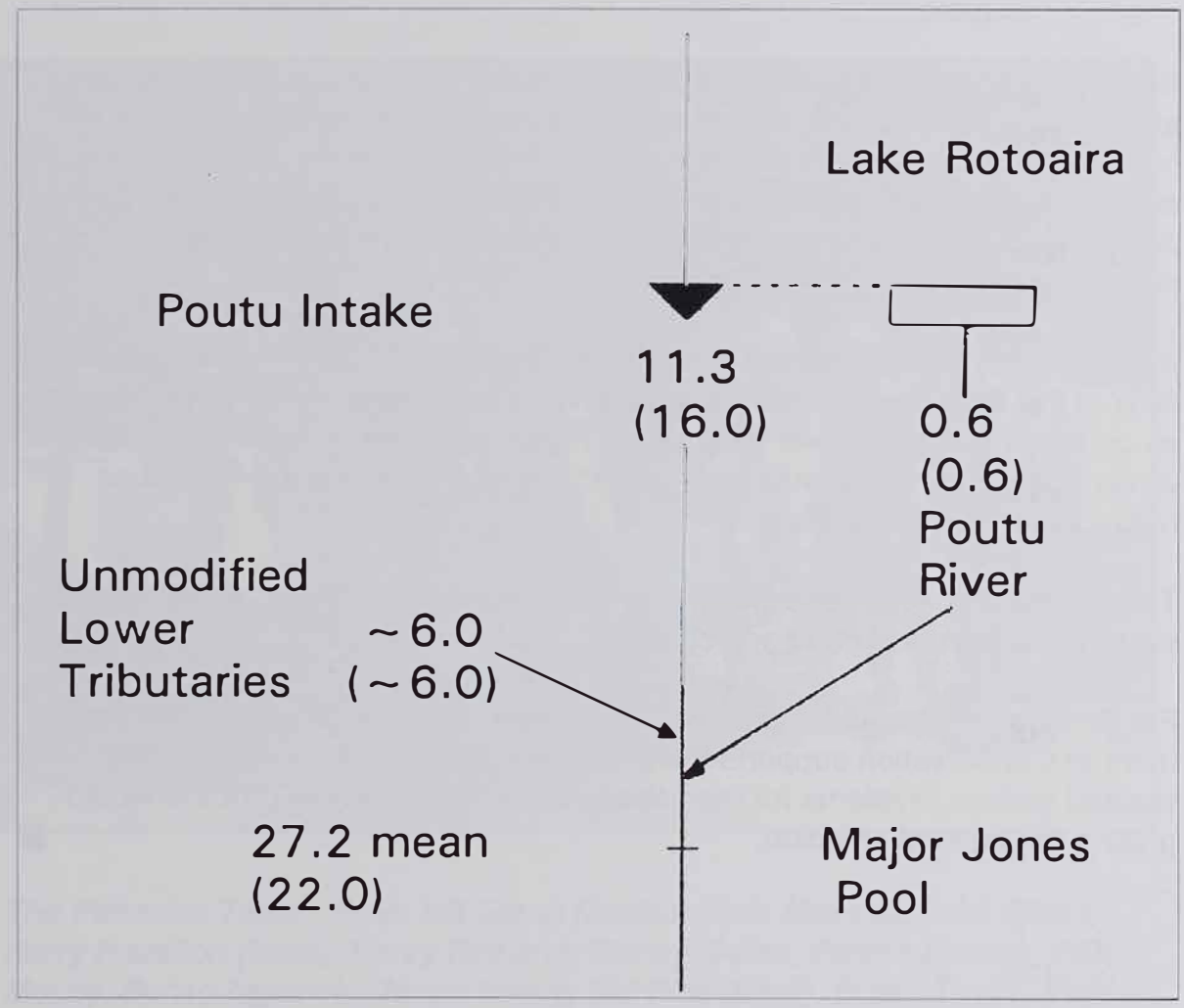


FIGURE 1: *Diagram of Tongariro River showing present minimum/mean flow rules (cumecs). Proposed minimum flows in brackets*

This proposal has been discussed with anglers and rafters, DOC, Forest and Bird, Taupo Fishery Advisory Committee, Environment Waikato and other interested parties.

At the last meeting on 5 May, these representatives unanimously agreed to support the change, subject to the following conditions:

1 That ECNZ maintains a 10 cumec flow over Waikato Falls until the Rangipo power station bypass valves are corrected (about December).

2 That the proposal be implemented for a 12-month trial from the time consent is granted.

3 That the trial be reviewed after that period and if there is significant dissatisfaction ECNZ would revert to the current flow regime.

Because the proposal requires a variation to the present rule governing flows at Turangi a resource consent is required from Environment Waikato. It is hoped this can be by way of a non-notified application given the consultation and agreement that has occurred. The conditions listed above would form part of any consent and would allow a reversion if there were unexpected negative impacts.

Instead of the flow at Turangi sitting at an unnatural 27.2 cumecs for about 80% of the time, there would be natural variation caused by weather influences on the unmodified lower tributaries. Flows in the lower river during the winter spawning runs should be higher than in the past and this should enhance angling opportunities.

Trout spawning and rearing habitat in the Tongariro and Poutu rivers should also benefit from the proposed changes.

For these reasons and for the benefits to other recreational users, the Department of Conservation supports the proposals. In the unlikely event that it created serious problems for the fishery, the inherent review process would protect the present situation. ■

NEW LICENCE FEES

After remaining unchanged for several years the price of some categories of Taupo fishing licences has increased slightly for the new season. Adult whole season, month and week licences have all increased by 50 cents to $46.50, $30.50 and $22.50 respectively. An adult day licence will increase by $1.00 to $9.00 to reflect the national approach that day licences should be worth approximately 20% of the value of the whole season licence. However, child day and whole season licences remain unchanged at $2.00 and $6.00 so as not to create a barrier for children to use the fishery.

The Fisheries Team: From left Glenn Maclean, Iain Maxwell, John Gibbs, Harry Hamilton (back), Henry Reihana, Shirley Oates, Wayne Boness, Rob McLay, Bonzo Ngamotu, Norrie Ewing, Sid Puia (back), Bryan Taylor, Vicki Maclean, Michel Dedual, Gordon McKenzie and Errol Cudby. David Howarth absent.

FISHERY INFORMATION IMPROVEMENTS

This season anglers will have access to a lot more information to improve their knowledge and enjoyment of the fishery.

Already available is a simple brochure containing the updated Taupo Fishing Regulations. Annotated in the margins are "plain English" explanations and cross references. The brochure is in photocopied form to allow updating as regulation changes are made. Copies are available from the conservancy office in Turangi at a cost of $2.50.

We have recently taken delivery of an outstanding set of display panels that show, with a minimum of text, how the fishery functions and how it is managed. These will mainly be used at outdoor and sporting exhibitions, field days and other suitable displays and venues. In between times they will be loaned to local sports shops and information centres.

Finally, the production is underway of a comprehensive information booklet about the fishery. This is not an angling guide as such, but rather provides information about trout, how the fishery functions and is managed, seasonal opportunities, access and services available to anglers. This will be modestly priced (about $2.00) and available in the next few months from licence agents, local book stores, information centres and this office. The draft of the brochure has been complete for several months but printing has been delayed because several of the photographs and diagrams to be used have also been used in the production of the fishery displays, now finally completed.

DOWNRIGGERS LEGALISED

From 1 July 1994 the use of downriggers is permitted in the Taupo Fishery for a three year trial period. This follows a recommendation from the Department to the Minister of Conservation, seeking amendment to the Taupo Fishing Regulations to allow the use of downriggers subject to two conditions. The length of cable on the downrigger spool is limited to not more than 40 metres and no weighted fishing line or additional weight may be used in conjunction with the downrigger.

During the three year trial period the Department will undertake intensive monitoring of the use and effectiveness of downriggers to ensure they do not have a detrimental impact on the fishery. At the same time, if you are using a downrigger, expect to be asked to lower the weight to the end of the cable on your drum. We will hook our own 40-metre cable to the weight, and if we run out of cable before you, we will be taking your downrigger home with us! For

a much more detailed discussion on the decision taken see issue 15 of Target Taupo, available from the Department in Turangi.

NATIONAL TROUT CENTRE NEWS

The first two open days for children this year have been and gone with the usual human drama unfolding around the pool and one fishy tale that's hard to beat.

The first Sunday of the May holidays was fine and mild and a disappointing total of 206 youngsters came on what is traditionally the busiest day in the year's schedule. The lowest attendance in 10 years: why? It's too early yet to say whether it's a trend, whether the extra fishouts we have had for both visiting and local schools are having an effect or whether it was the lack of advertising.

The pond contains two year classes of trout, the 1+ aged fish which average 220 grams and a few hundred 2+ fish averaging 1100g. The latter are left from an order which was reneged on last year; they have been in the pond for nearly two years and have been tempted with many different flies in that time with the result that they are fairly selective about what constitutes a tasty morsel. In other words, they are downright hard to catch!

One of the budding anglers thought he'd get a big fish one way or another so he hooked into one of the small ones which took a turn around one of the big ones while it was fighting to escape, the leader caught in the gills of the large fish and both were landed - a 100 gram fish and the other more than ten times larger at 1080 grams. The surprised boy was awarded a box of flies as well as the two trout.

The June fishout traditionally brings out fewest junior anglers but this year 175 turned up, nearly as many as in May despite the foul wet weather on the day. This is the twelfth year the open fishing days have been held and that was the fifth highest total so it seems that it pays to advertise - that was the only thing done differently on this occasion. There were 23 older fish caught averaging 1100g and 152 younger fish averaging 220g.

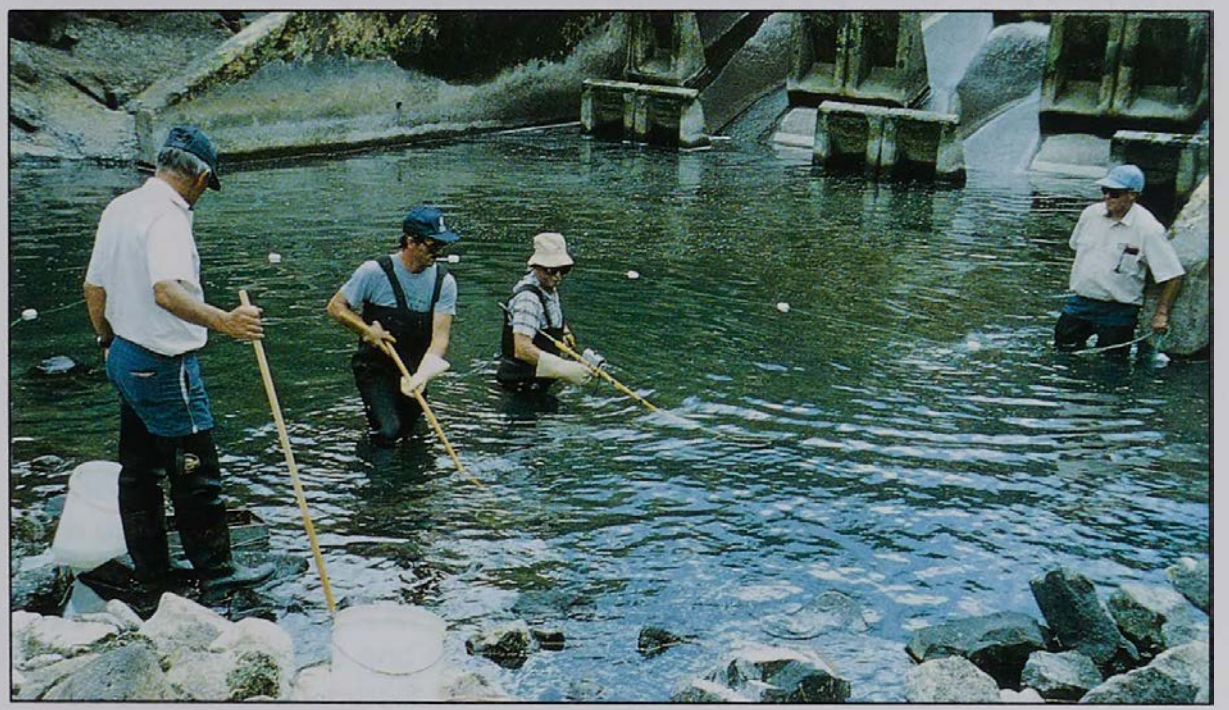
The next fishing days for children will be on 28 August and 18 September.

FISH SALVAGES

Over recent months fisheries staff have had to rescue stranded trout with the aid of electric fishing machines as a consequence of two quite different water conditions.

In March fish were salvaged from the base of the drop chute just downstream of the fish screens in the Wairehu Canal. This canal drains the water from Lake Otamangakau toward Lake Rotoaira. The amount of water which can be drained depends on the level of Lake Otamangakau and the minimum flow requirement which must be met in the Whanganui River. As a consequence of the long dry summer all the western diversions had to be closed to return the natural flow to the Whanganui and so to hold the level of Lake Otamangakau no water could be drained. Thus the Wairehu Canal was largely dry except in some of the deepest pools where any fish collected. The salvage operation showed that the fish stranded were mainly juvenile rainbow trout with the odd bigger fish. These fish have originally come through the fish screens as fry.

In June this year we also had to salvage fish from the same old side channel of the Tauranga-Taupo River (see Target Taupo, issue 14). A total of 18 adult rainbow trout were rescued. These fish had entered the channel during a fresh and been stranded when the river fell. A dam has now been built and the fish should no longer be able to have access to this channel. Strandings are not uncommon and are caused by a lack of water following a long dry spell or a drop of the water level following a short fresh. Anglers are asked to advise the Department if they come across any strandings involving adult or juvenile fish.



Fisheries staff salvage trout stranded at the base of the top drop chute on the Wairehu Canal. From left Bryan Taylor, Michel Dedual, Norrie Ewing and Errol Cudby.

NEW SIGNS FOR LAKE OTAMANGAKAU

New information signs for Lake Otamangakau are currently being designed and will be installed prior to the opening of the new season on 1 October.

These signs will provide general information on the lake and on angling and boating restrictions as well as information about the trophy fishery. They will be placed at both boat ramps on Lake Otamangakau and replace all the dilapidated signs currently littering the area. Other finger boards will be placed out on the entry roads directing anglers to the information.

One of the most important messages on the new signs will be to reinforce that a 5-knot speed restriction exists on the lake within 200 metres of the shore. Given the irregular shape of the lake shore this means only a small area in the middle of the lake is exempt.

It has been very noticeable with the increasing popularity of the lake in recent seasons that the fishing has gone off during peak periods independent of weather or lake conditions. It is only a very small shallow lake and a lot of boating activity will put the trout off the feed. All those skippers, and there are a lot of them who break the 5-knot speed limit, only accentuate this disturbance.

Under the Water Recreation Regulations our officers are warranted to enforce this restriction. We have decided, given that the major impact is on angling and angler safety, that we are going to sort this out this summer.

If you are one of the many who either didn't know or ignored this restriction, it might be an idea to slow down next summer!

FISHING PROSPECTS THIS WINTER

Already, this winter is shaping up weatherwise to be quite different from recent winters. Up until mid-May the weather remained very mild with no rain and an almost total absence of the frosts which normally occur in April. The rivers were exceptionally low and the fishing on both the lake and rivers hard.

As discussed in 'Consider the Weather', page 52, lake fishing is typically demanding at this time of year because of unfavourable conditions which the continued mild weather did nothing to alleviate. A feature of those fish caught though was their excellent size and condition. For example, the average weight of fish weighed in the International Fishing Competition was almost two kilograms.

Anglers fishing on the rivers also struggled with the exception of those who targeted the upper Hinemaiaia which had its best end to the season for many years. It was our perception, however, from operating the Whitikau trap and other observations, that small pulses of fish were continually moving through the rivers but in general anglers were finding it difficult to get onto them. Ten days of rain in mid-May, though, caused some big runs to enter all rivers though prolonged adverse river conditions prevented angling for many of these fish until they reached the upper river. By late May runs were spread throughout the rivers and the anglers were reporting that the fishing was much more consistent.

A feature of the fish this year has been their very large size and excellent condition. Fish through the Whitikau trap have averaged 55cm in length and just over two kilos in weight. These fish are proving a real challenge to land and anglers are losing more than usual. Testimony to this is our steadily growing collection of flies removed from fish passing through the Whitikau trap. However, anglers seem very pleased with those fish that they finally do get on the beach.

Given that we would expect the runs to increase significantly yet, peaking in late July through August, things are looking very promising for the next few months. Crowding is once again an issue and already this winter there have been occasions when the Tongariro and Tauranga-Taupo in particular have been absolutely packed. Again we suggest that, if you can, you delay your trip until later in the season. There are as many fish or more in September as in May but a lot fewer people.

Interestingly it appears the upturn in raft fishing in the upper Tongariro is reflected by reduced angling success. This is almost certainly a consequence of the removal of some fish and more importantly the increased disturbance.

There wouldn't be an occasion during winter and possibly even summer when, if we drift dived through the pools in the middle and lower Tongariro, we wouldn't see at least a handful of fish in every pool. Yet on some days hardly a fish is caught from the river. The upper river is no different. When undisturbed, trout will readily lie out in the shallows and often take anything thrown in front of them. However, many of these fish will have held in the upper river for a few months and if they are hounded every day, just like anywhere else they get an awful lot harder to catch. The fish are still there, they're just not suckers anymore!

There is a general perception that Taupo trout are oblivious to continually being cast at and waded past. They will certainly put up with a lot but you only have to watch the change in behaviour of the same fish after being

undisturbed in the spawning stream for a few weeks to realise it had an impact.

In all probability the increased success associated with a fresh run in the river reflects not so much that there are suddenly fish where there were none before but simply that there are now fish present which have had little or no prior contact with anglers.

The operation of the TPD scheme has meant that the recent rain had little impact on the bed of the mainstem of the Tongariro but in the tributaries and other Taupo rivers freshes have cleaned out the spawning gravels creating ideal spawning conditions for the early run fish.

All in all, things look very promising for both fish and anglers.

COINCIDENCE OR WHAT?

Trapping duties on all our traps are shared evenly amongst staff, yet Sid Puia leads the honours board for the largest fish through the Whitikau trap (6.4kg brown) and the largest brown (4.5 kg) and largest rainbow (5.95kg) through Te Whaiau. Perhaps we should leave him out there all the time!

SURVEY UPDATE

Once again this winter, staff will be approaching anglers on the Tongariro and Tauranga-Taupo rivers interviewing them about their success and seeking their views on the state of the fishery and anything which detracts from their experience. The days are chosen at random and each interview takes only 5 or 10 minutes.

From the results, managers are able to obtain an idea of how well the fishery is providing for the angler. For example, in recent seasons there has been a marked improvement in anglers' satisfaction with fish size and condition. The survey also provides information on such current concerns as overcrowding, commonly expressed in 1993.

As mentioned in the article on the Tongariro Research Project you may also be approached by an officer wishing to check any fish you have caught. In most cases this should not even require you to stop fishing so long as you can point out where your fish are lying on the bank.

Your assistance is appreciated and it is an opportunity to put forward any comments or concerns you may have.

WAIMARINO DIVERSION

Works to protect the Korohe village are being undertaken in the Waimarino River. The village is built within the flood plain of the river valley and the existing river channel has been eroding its way toward the village for several years. Residents fear that the river may eventually break out of its existing channel and inundate houses and property.

To alleviate the situation Environment Waikato have decided to return the river to an old (now dry) river channel on the north side of the flood plain which is some distance from the village. The decision to proceed with the project was only made possible through the inclusion of conditions to protect environmental and fisheries values.

The old channel that will receive the river is being hand cleared of willows and scrub. Some reshaping may also be undertaken prior to diversion to ensure that the configuration of pools, ripples and water velocity matches that currently in the existing channel. The actual diversion will be the last part of the project. By taking this approach, instream disturbance (dirty water, etc.,) will be minimised. Walking access for anglers along the banks of the diverted section of river will also be provided.

TAURANGA-TAUPO FLOOD PROTECTION

The flood channel adjacent to the Te Rangiita quarry and upstream of the Crescent Pool has now been sealed off to remove the potential for this side channel to become the permanent river channel. Had that happened there was a risk that the river would continue to erode northward with a threat of flood damage to the quarry and properties further downstream.

The original works proposal was substantial involving a much larger protection wall with significant river bank and riverbed disturbance during its construction. Following submissions from the Department on the need to protect fishery and angling values, the scheme was scaled down to its present size.

During the investigation to design the most appropriate works, it was discovered that a contributing factor to the original river breakout was that during floods, water was flowing down tracks caused by vehicle traffic. Because of the soft substrate, the river was able to form channels in the less vegetated parts of these vehicle tracks.

Anglers are reminded that their access agreement with the landowners provides for *walking only.* Vehicles cause damage to property and environmental values within the river bed. Anglers taking fourwheel drive vehicles across the river risk prosecution for disturbing trout spawning grounds. Please give these factors some consideration. Departmental staff will continue to monitor this situation closely.

STOP PRESS: On Saturday, 24 June, the Tauranga-Taupo River again broke through into the side channel. The works described above have now disappeared. Back to the drawing board!!

COMPLIANCE UPDATE

As the winter spawning runs enter the district's rivers, word soon spreads as to where the fish are holding. This in turn leads to people congregating at these spots. Several anglers have contacted our staff expressing concern at other anglers' lack of manners. The main concern is that a few anglers think that they have sole rights to certain sections of rivers, denying others a turn. While there is no law which requires anglers to move, it is bad manners to "hog" the same spot indefinitely. With a little common courtesy between anglers, conflict situations can generally be avoided. Anglers who resort to intimidation of others have no place on Taupo's rivers and certainly do not enhance the fishery's reputation amongst visiting anglers.

Already this winter complaints have been received about anglers who are continuing to catch and keep fish after having kept their daily bag limit. Complaints of this nature are difficult to prove unless our staff are contacted immediately. Some people are of the misunderstanding that it is alright to continue catching and releasing fish having already kept three fish. This is *not true*.

Recently in the Taupo District Court a person was convicted of continuing to fish after having kept his daily limit. In this instance six fish were found in the boot of a car as the result of information received. The Judge imposed a penalty of $750.00 plus $95.00 court costs and the forfeiture of this person's fishing gear and trout. This case shows how quick action by the public can result in offenders being made accountable for their actions.

A reminder to river anglers that winter limits on most rivers came into force on 1 June and run through until 30 November. Consult the map on your licence or contact our staff if unsure of these boundaries.

Recently we have taken delivery of a new boat, a 5.7 metre Ramco Fishmaster built by Ramco Boats of Hamilton who changed their standard production model to suit our requirements. We believe the boat will be ideal to cope with the changing conditions of the lake, and the demands we will place upon it.

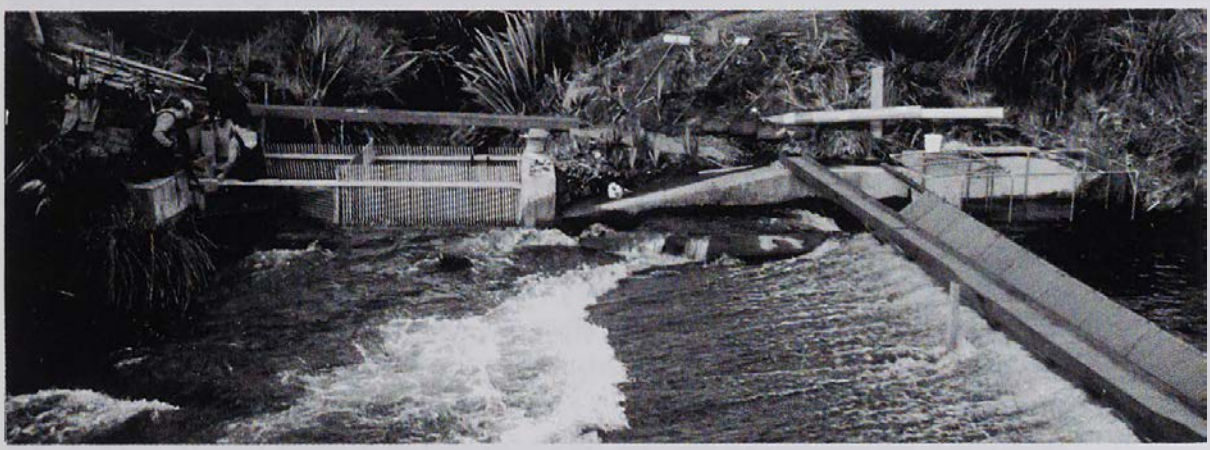
After much consideration by our staff it was decided to name it "Kahu" (harrier hawk) which was thought apt when considering its main function.

If approached by a white and blue aluminium boat, do not be alarmed, it will probably be "Kahu" at work. ■

RESEARCH INTO THE LAKE OTAMANGAKAU FISHERY

This autumn the Department has begun operating two fish traps in the Te Whaiau Stream and adjacent Whanganui Outfall. The Te Whaiau Stream is the only suitable spawning tributary available to trout from Lake Otamangakau though spawning fish also collect in the outfall from the Whanganui diversion. Unable to traverse the pipe to return to the Whanganui these fish have historically been subject to intensive poaching.

The Whanganui trap consists of a novel swinging barrier across the top of the spillway and a trap against the true right bank. Under high flows the screens are free to swing in the current, creating a self cleaning barrier which prevents the water backing up in the culvert outfall. ECNZ have a water recorder in the outfall and it is a condition of their approval for us to use the site that the trap does not influence the water level. This constraint had in the past proved to be an obstacle to designing an effective barrier. Fish are assisted up the spillway into the trap using a simple wooden fish ladder. Once in the trap the fish are weighed and measured, fin clipped by removing half the right pectoral fin and placed back in the Te Whaiau Stream upstream of the Te Whaiau trap barrier. This is done by sliding them through a 10 metre PVC pipe dug into the bank between the two traps. Once placed up here those fish originally caught in the Whanganui seem content to move on up the Te Whaiau.



Staff put finishing touches to the Te Whaiau trap. The Whanganui trap and barrier is on the right. The PVC pipe used to slide fish from the Whanganui outfall across to the Te Whaiau Stream sticks out of the bank over the Whanganui trap.

The Te Whaiau trap is a more conventional trap consisting of two fixed barriers across the stream and divided in half by a further barrier. Fish running upstream enter through the 'V' on the true right side which is lower than the rest of the barrier. This allows fish to escape back downstream in a flood if they are getting too knocked about in the pen but they still cannot get upstream past the front barrier. Spent fish returning to the lake are trapped in the true left pen. This both prevents them becoming pinned against the front barrier in flood flows and also allows us to count and clip any fish which were already upstream of the barrier when the trap was installed on 20 April.

So far the run has been dominated by brown trout which typically run a month or two before the rainbows, as shown in table 5.

Month	Rainbow Male	Rainbow Female	Brown Male	Brown Female	Total
20 - 30 April	2	4	17	25	48
1 - 31 May	29	43	131	254	457
1 - 30 June	50	100	15	102	267
	147	81	163	381	772
Unclipped fish returning d/stream	1	3	12	43	59
Total	148	84	393	206	831

TABLE 5

Some of the male browns especially are absolutely splendid, with bright golden flanks and a vivid yellow underbelly. Already it is apparent many of the fish are completing spawning in less than a month as compared to Taupo where many fish spend at least three or four months in the spawning tributaries.

Clipping only half the fin allows it to regrow and by next summer the fin will be complete though a distinct scar line will be obvious across the middle. A different fin is clipped each year, so that in future years it is possible to tell how often the fish has passed through the trap, that is how many times it has

spawned. Looking at the proportion of repeat spawners will also provide valuable information about the angling harvest. If the proportion declines it may be an indication of an increasing harvest, i.e., the chances of a fish surviving long enough to spawn a second time are reduced, because it is more likely to have been caught.

Three of the rainbows trapped have gone 13lb (5.9kg) and altogether 13 of the rainbows have been over 10lb (4.45kg). Interestingly only two of the 564 browns have reached the magical mark and both of these weighed 4.5kg. It is one of the puzzles why brown trout in Lake Otamangakau don't reach similar sizes to the rainbows. Prior to the trapping we were only aware of two browns in recent years which we were confident would have been at least 4.5kg despite regularly hearing stories from other anglers about catching such fish. The results from the trapping appear to support our perception and highlight how often fish weights are over-estimated. It's not hard to imagine how it happens. Even our staff, who are handling a lot of fish and amongst whom there is a lot of friendly rivalry to be on the trap when a big fish goes through, occasionally pull out a fish they think will make the honours board only to be disappointed when the scales register 3.7 or 4 kgs (8-9 lbs).

The results already highlight some of the value of this project. Managers are pleased and a little surprised with the size of the brown trout run. We are now looking forward to seeing just how many rainbows are present and to just what size they do get.

Staff have also stripped eggs from several of the browns and rainbows passing through the trap. These will be reared in the hatchery until the fry are 50 to 60mm long whereupon they will be marked by removing the whole of the left pelvic fin and released into Lake Te Whaiau. Unlike trap clips, if the whole fin is removed it never regrows. Recapture of these fish in the traps as they return to spawn, or by anglers, will provide valuable information on growth rates and survival. If you catch one of these fish missing the left pelvic fin please drop us the details of the species, when it was caught and its length (and weight, if possible).

Further research into the life history and diet of Lake Otamangakau trout and the impact of the summer lake operating regime is proposed as part of the TPD resource consents process. All this work is part of a much more intensive management approach to Lake Otamangakau, recognising and managing it as a trophy fishery which is under increasing pressure from ever growing numbers of anglers. ■

CONSIDER THE WEATHER

Many anglers are aware that the weather can have a major influence on their fishing success. In this article we discuss some of the aspects to consider when deciding when and where to go fishing in the Taupo area. Most of these ideas have been around for many years and have proven successful more often than not. However, like any aspects of fishing, there are always those occasions which prove the exception to the rule. Often, especially for visitors to Taupo, it is not always possible to pick and choose when to go fishing anyway. At the end of the day as long as your line is in the water you have a chance of catching a trout.

ON THE LAKE

Each night during spring and summer, large numbers of trout move into the shallows to feed on smelt. Anglers harling across these areas at dawn or soon after may experience some furious action until, as the day brightens, these fish move deeper. If the day dawns clear the action may be over as early as 6.30 or 7 am, whereas if heavily overcast, preferably with a slight ripple, some fish may remain in the shallows all day. Similarly if the weather deteriorates during the day the fish may move back nearer the surface. If not before, the trout will start to move back into the shallows at dusk. Many anglers on holiday prefer to fish at this time of day for obvious reasons but on the balance dawn is normally more productive.

A glassy calm lake on a hot summer's day makes for ideal boating but not usually very successful fishing. However, even when the lake is calm there will often be localised areas of breeze creating a ripple. Trolling through these areas may produce fish on otherwise quiet days.

Unlike, for example, Lake Rotorua where an onshore wind should be avoided, wind direction is not usually important on Taupo. The exception is during prolonged periods of westerly or south-westerly winds which occasionally occur during spring and summer. Under these conditions the smelt seem to avoid the shallow shelf along the eastern shore and even when conditions allow, the harling in these areas may not be very successful. Conversely a boisterous trip to the more sheltered Western Bays may provide some of the best fishing of the year.

During spells of incessant westerlies the majority of boats at the northern end of the lake are confined to fishing inside Tapuaeharuru Bay. Fish stocks are not unlimited and a few days of heavy angling pressure will reduce the number of fish available in this area, making catching a fish that much harder. However areas such as Horomatangi Reef may be unfished for several weeks and provide some rewarding angling when conditions finally allow.

A feature of Lake Taupo is that wind conditions in one area are often not the same elsewhere. Commonly a south-westerly will blow over the top of Turangi and the southern end of the lake creating calm conditions whereas the northern end will be quite rough. However a south-easterly will funnel down the Desert Road buffeting Turangi and out across Stump Bay to Karangahape, but then dissipates to provide pleasant boating conditions elsewhere.

Trout will feed happily in very rough waters, though few anglers enjoy such conditions. Similarly, fishing in the rain is not particularly pleasant for those in an open boat and by and large is not very successful. Fish detect coming changes in the weather and may feed furiously before a storm. However, rather than occurring as it starts to rain, this activity may be many hours before an obvious change in the weather. Such changes though will be indicated by a falling barometer.

During summer the surface waters of the lake warm much quicker than the bottom waters. This creates a density difference between the lighter surface waters and the heavier colder bottom waters which prevents the two bodies of water mixing. This is called stratification and the narrow zone between the two bodies of water is called the thermocline (figure 2, overleaf). As the sun continues to beat down the surface waters become warmer and warmer and the thermocline is slowly pushed deeper. By late summer the thermocline is approximately 35 metres deep. Huge shoals of smelt congregate around the thermocline and in a layer around the 100 metre deep contour. Trout which prefer cool water temperatures are inevitably below the thermocline, often associated with one of the smelt layers. These fish are out of reach of anglers (including those with downriggers) and remain so until winter when falling temperatures and strong winds are sufficient to once again mix the two bodies of water.

Lake fishing on days of, or immediately following, the full moon can be very hard work, particularly in the morning. Occasionally the fish may come on the feed in the afternoon but by and large the morning is best spent doing other things.

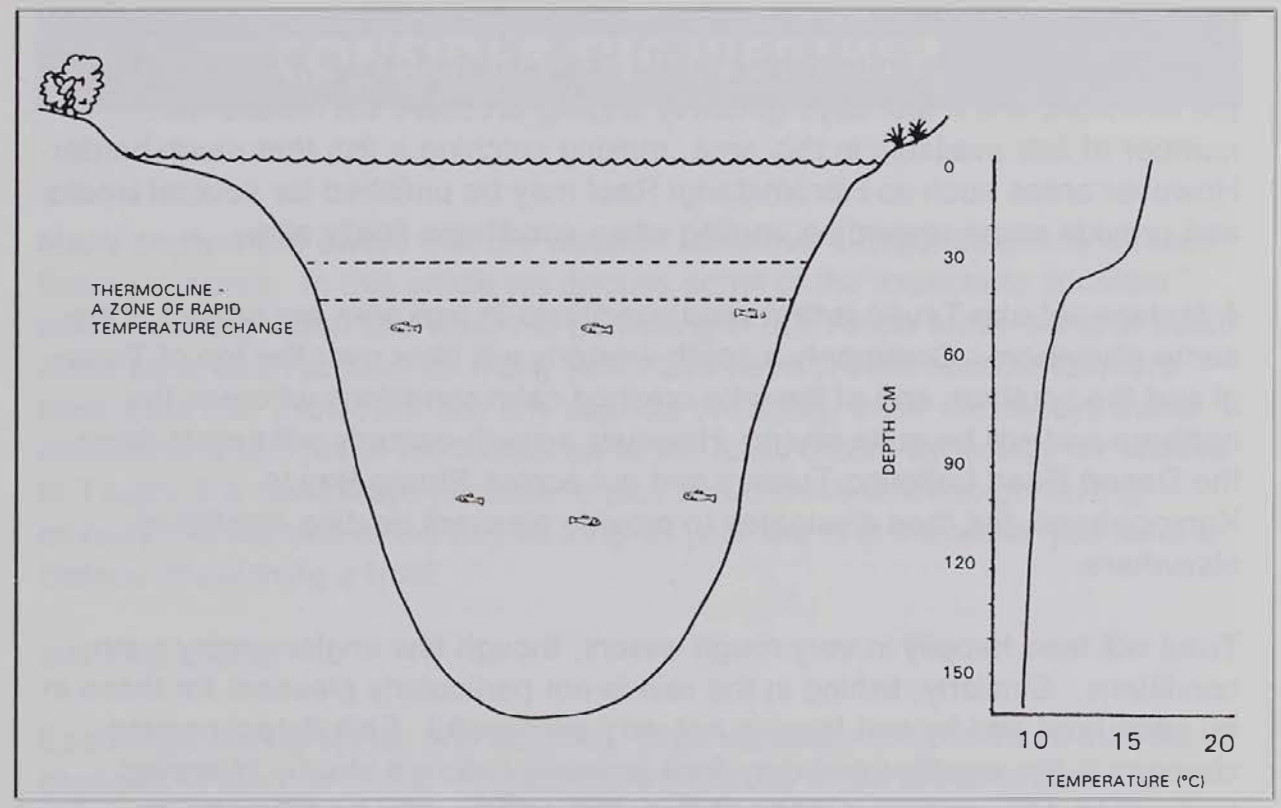


FIGURE 2

AT THE RIVER OR STREAM MOUTH

The key to successful river or stream mouth angling is a well defined rip pushing out into the lake. The formation of a rip is largely influenced by the lake level and wind direction. When the lake is very low many of the smaller streams like the Waipehi or Mapara spread out as they run down the beach, forming a very wide shallow mouth, resulting in an almost non-existent rip. However, the larger rivers like the Waitahanui, Waimarino and Waiotaka tend to cut themselves down into one or two very defined channels which on entering the lake create ideal rips.

Under high lake levels though, the mouths of these bigger rivers and streams tend to be much larger and the current spreads out over a wide fan which generally is much less conducive to good angling. Very high lake levels may also make angling at the small streams awkward by causing the angler to have to wade further out than desirable in order to gain sufficient space from nearby trees for their backcast.

With the exception of the Waitahanui, onshore winds should be avoided if possible, particularly at the smaller streams whose rips are easily disrupted by only a slight breeze. Even a slight cross breeze can push the smaller rips

along the beach. Under these conditions the ideal spot to fish from is on the downwind side of the rip as it enters the lake.

However, at the Waitahanui a period of westerlies will cause the river to run along the beach before breaking out into the lake. This creates a rip angling up the shore towards Taupo and further westerlies during the day will force the rip to swing back onto the beach. This rip allows anglers to spread several hundred metres up the shore and some of the best fishing can occur where the rip finally turns and heads back into the lake.

Often during late summer the wind will be too strong to cast into during the afternoon and early evening but will drop away at least a little, several hours after dark. A large swell will continue to drive in on the beach which makes for challenging and exhilarating night-time angling, though it's not everyone's cup of tea. It's surprising how rough it can get and still the trout will be in amongst the waves.

The week of the full moon is best spent watching television, except occasionally at the deep water mouths of the delta and more consistently at the Tauranga-Taupo.

In late autumn/early winter spawning fish begin to hold off the mouths in preparation for running the river. These concentrations of ripe fish often provide excellent angling particularly if the winter rains are late coming. Following a fresh during which most of these fish will have entered the river it will take a few days settled weather for the next run to again build up.

ON THE RIVERS

During winter large numbers of trout enter all the rivers whenever conditions are suitable, making their way steadily upstream to their spawning areas, well above the winter fishing limits. To be regularly successful anglers need to be able to anticipate when each run will enter the river and put in the effort while the fish are still available below the closed areas.

Runs in all the rivers, with the exception of the Waitahanui, coincide with likely freshes in the river. During settled weather numbers of fish build up off each mouth in preparation for suitable conditions to enter the river. Often a run will enter the river on a falling barometer and a change in the weather 24 hours before heavy rain. A second run will also enter the river as the fresh recedes several days later. Runs normally enter at night but not always. If the river continues to clear anglers are likely to encounter these fish low in the river the next morning and be able to follow their progress upstream over the next couple of days. However, often another small fresh or two occurs during

the next few days and the river is at the most fishable for only a few hours for perhaps a whole week. Anglers wait in anticipation expecting marvellous angling but are often disappointed. Occasionally a run has entered the river after one of the later freshes but more often the majority of fish ran as soon as conditions were suitable and by the time the river clears have reached the sanctuary of the closed waters. The ideal conditions are a short period of heavy rain which then clears to settled weather until another period of rain a week or so later, so that pulse after pulse of fish enter the river as happened in the winter of 1992. Early in the winter if the rain doesn't fall as in recent winters the fish simply remain in the lake. However, later in the season as they get more mature they may not be able to be so selective and may run on much less of a stimulus.

When the rivers near Turangi are in flood those with limited time may still find the Hinemaiaia fishable due to the influence of the three dams on the upper river, and the spring-fed Waitahanui rarely discolours. The Tongariro River usually clears within 24 to 48 hours of the rain stopping, a day before the Waimarino, Waiotaka or Tauranga-Taupo, due to the flow manipulation as part of the TPD scheme. Often the Tongariro will discolour due to the input from tributaries such as the Whitikau and Waipa without rising in level, but this is sufficient to stimulate another run.

The smaller streams fish best while still slightly discoloured. Under these conditions large numbers of fish may lie out in the open using the cover of the milky water. By the time the river is running low and clear the lower reaches will be relatively empty of fish though it was noticeable in the Tauranga-Taupo last season that more fish than usual were evident under such conditions.

Unlike the other rivers, runs in the Waitahanui are more dependent on wind conditions than rain. A strong south-westerly or westerly at any time of the day will drive fish into The Straight below the state highway bridge.

Once in the river it is the perception of managers that the fish are most responsive while holding in resting pools rather than actually running. Inevitably when fish can be seen streaming over the shallow margins at the tail of a pool, perhaps on a grey wet winter afternoon, catch rates in the pool are poor.

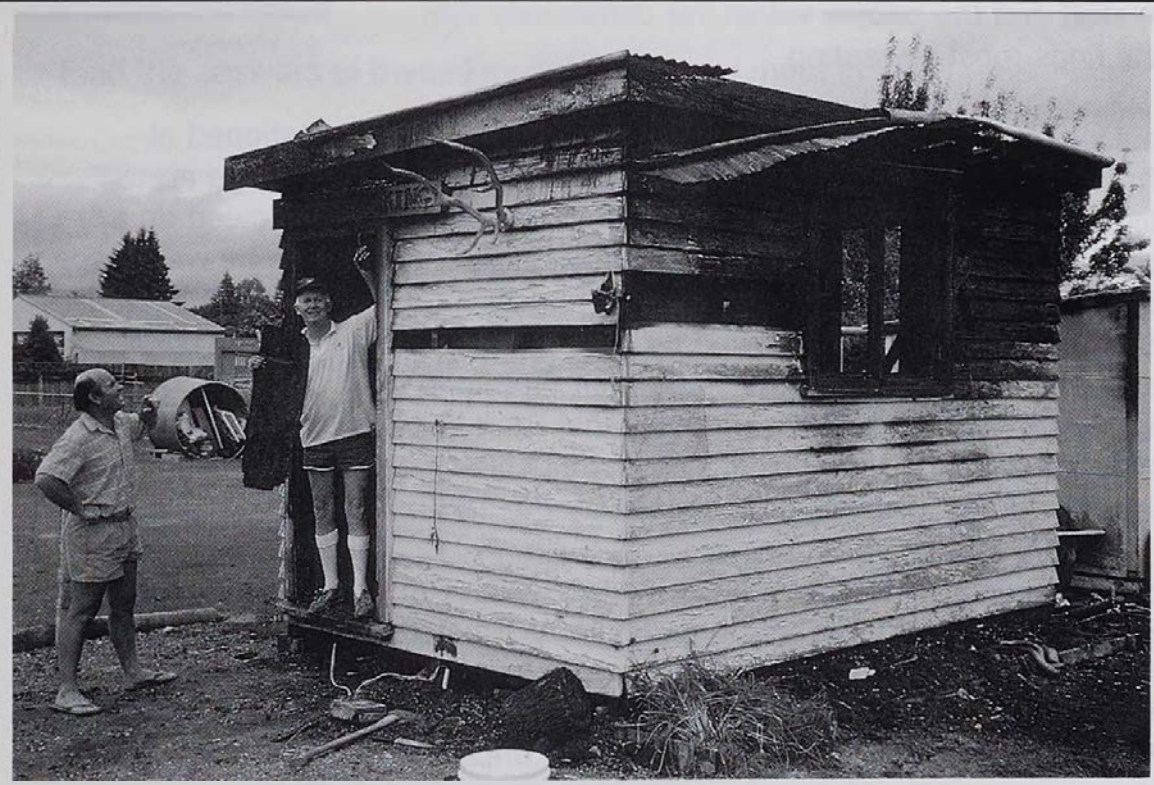
Wind has little affect, other than as mentioned, a strong south-easterly can affect the Tongariro, Waiotaka and Waimarino while the banks of rivers further north are covered in a stiff frost.

Anglers have most success early in the morning but this tends to be more as a consequence of being first over the fish. The fishing can be equally good at midday if the pool has been left undisturbed until then.

SUMMARY

Applying these ideas will help your fishing success but by the same token it's very easy to get too clever. The fish don't always play by the book. The harling can be magic in the middle of a hot calm summer's day or a run enter the river amidst a period of hard frosts and settled weather. If you're not having success be prepared to try different techniques or areas.

In the middle of May the author was standing at the Whitikau trap on a sunny but breezy afternoon watching the trout streaming up into the trap. The weather forecast for the next few days was for scattered showers but one couldn't help but wonder if the fish knew something we didn't! A day later it started to rain and four freshes and 10 days later it finally cleared. There has to be a moral in there somewhere. ■

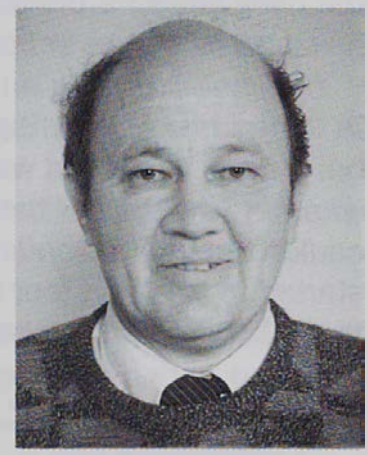


Fishery Planner Rob McLay (left) and Graham Hodren see the funny side after Graham's smokehouse burned down recently. Graham, who is well-known for his smoked fish and meat delicacies, has bounced back from this setback with a new smokehouse and established a retail outlet in the Turangi shopping mall.

Rob McLay can afford to laugh - he is no slouch at smoking fish by setting the smokehouse on fire either!

MANAGER PROFILE

PAUL GREEN



Paul Green is based in Turangi as Regional Conservator for the Tongariro/Taupo Conservancy. This means that he is ultimately responsible for a number of areas and activities in the central North Island, in particular Tongariro National Park, Kaimanawa Forest Park, the proposed Tongariro Forest Park, Lake Taupo reserves and of course the Taupo fishery. It is the variety of the job and working with the staff and the people within the community that Paul finds most rewarding.

Paul joined Lands and Survey as a national park ranger stationed at Ohakune in 1974. In 1976 he spent six months on an exchange at Kosciusko National Park in New South Wales which was followed an appointment to a senior ranger's position at Whakapapa where he was responsible for all ski field and concession management. A nine month spell as acting chief ranger was followed by permanent appointments as chief ranger first at Hauraki Gulf Maritime Park, then Fiordland National Park, before finally moving back to Tongariro National Park in 1986. When DOC was established Paul was appointed as district conservator for the Tongariro District and finally as regional conservator in 1989.

Prior to joining the Department of Conservation Paul was an active user of New Zealand's outdoors with a particular interest in climbing and conservation issues. In 1968 he visited South America on a climbing expedition for nine months. For three years he was secretary of Federated Mountain Clubs. More recently he was part of an international seminar looking at the management of the Huangshan World Heritage Park in China.

Paul enjoys the challenge of conservation management and believes there are always going to be issues of great public interest. He considers meeting the expectations of recreationalists is often more difficult than dealing with environmental impacts. Meeting social expectations on the Tongariro River will continue to be of great concern to anglers and other outdoor users. ■

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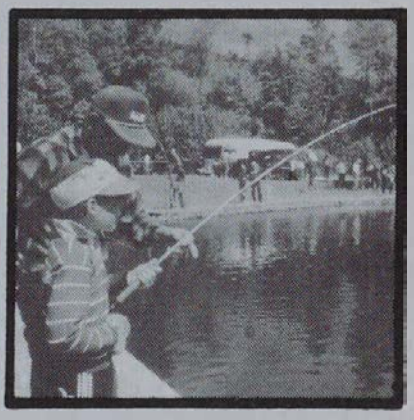

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