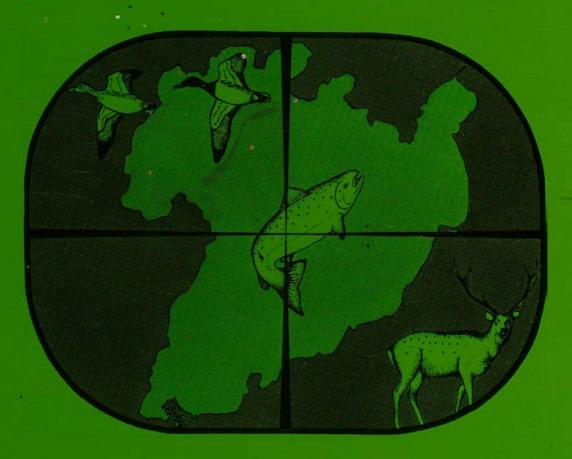
Vol 1 Issue 2

# ARGET

A Newsletter for Hunters and Anglers in the Taupo Area





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ISSN 0114-5185

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#### DEAR SPORTSPEOPLE,

Kia Ora.

Welcome to the second issue of Target Taupo. I would like to congratulate the staff involved in producing the first issue. Thanks also to the public who have given an immediate response to the publication. It is particularly pleasing that many readers have given feed back on the first issue. The 'Nymph Fishing Issue' drew significant comment and many points of view. That's great and we encourage you to respond on these types of issues.

A restructure of the Department of Conservation on 1 July 1989 saw the creation of 14 conservancies and the disestablishment of the previous 8 regions and 34 districts. The former Taupo and Tongariro Districts have formed the new Tongariro/Taupo Conservancy based at Turangi with field centres at Taupo (Native Plant Nursery), Turangi, Whakapapa and Ohakune. The new conservancy reports directly to Wellington. Key elements of the Conservancy are Lake Taupo and reserves, Kaimanawa Forest Park, Tongariro National Park and Tongariro/Erua Forests. These areas offer some of the best hunting and angling opportunities in the country.

Target Taupo will be extended to cover activities throughout the new conservancy. It is worth noting that the Taupo fishery (including the Tongariro river) will be the only fishery managed by the Department of Conservation after 1.4.90. Government has resolved to etablish user groups (Regional Councils) to manage fish and game throughout the country with the exception of the Taupo fishery. The exception has been made in recognition of the partnership agreement between the Crown and the Tuwharetoa people made in 1926.

The staff look forward to the continuing challenge of managing the Taupo fishery in the future.

Good Fishing and Hunting

Paul Green
REGIONAL CONSERVATOR — TONGARIRO/TAUPO

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TONGARIRO/TAUPO REGIONAL OFFICE
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#### **EDITOR'S NOTE**

The concept behind "Target Taupo" was to inform users about the local fish, game and animal resources, and to highlight issues, problems and management policy concerning these resources.

It was hoped that it would stimulate healthy debate on major issues and provide a forum to circulate new ideas for comment.

We have received constructive and thought provoking comments regarding issues raised in the first publication and we encourage people to take the opportunity in the future to put their thoughts before us. In this issue we have also provided space to allow for the Taupo Ward, as the anglers and game bird hunters representatives, to circulate a paper for anglers consideration.

We are extremely pleased with the response to the magazine, and now that it seems assured, have included a years subscription form. We hope you find this issue equally satisfactory.

CAM AND GLENN

Information about illegal activities is only of use when it is passed on immediately.

Please contact law enforcement staff: —

Dan Delaney Phone 68607 wk 68305 home

Brian Taylor Phone 68607 wk 67121 home

Ken Short Phone 85450 wk 85829 home ANYTIME

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## IS CATCH AND RELEASE NEEDED IN THE RANGITIKEI AND NGARURORO HEADWATERS?

A frequent topic of debate amongst anglers is whether backcountry trophy fisheries such as the Rangitikei and Ngaruroro rivers should be catch and release only.

With the initiation of the revision process for the Kaimanawa Forest Park Management Plan as necessitated by the Conservation Act 1987 it seemed an opportune time for fisheries managers to consider the issue as it related to those rivers within the park boundary.

#### THE CENTRAL NORTH ISLAND FISHERIES

The remote headwaters of the Rangitikei and Ngaruroro rivers of the central North Island consistently produce rainbow trout in excess of 4 kilograms in weight and have well deserved reputations as trophy fisheries. Scale samples taken from trophy fish indicate that many have spawned 2, 3 or even 4 times, continuing to grow after each spawning. This is contrary to the situation in Lake Taupo where trout grow very little, if at all, after breeding and rarely survive spawning for a second time. This continued growth results in fish of very large size but also of great age (5 to 7 years). Such trophy fish occur only in low numbers indicating a very small proportion of juveniles ever reach trophy size. These big fish are only slowly replaced and so removal of a large number of them will put the trophy trout fishery into decline.

There is a perception amongst some anglers of reduced numbers of trophy trout in the Rangitikei and Ngaruroro rivers. With the limited information available fisheries managers are unable to corroborate or refute this perception. Nor, if it is real, can managers confirm or refute the hypothesis that excessive angling has caused the reduced availability.

It is quite possible that ecological influences, for example, changes in the habitat quality in the lower river where most juvenile trout are believed to rear, may have a far greater impact on the structure of the trophy fishery than has angling pressure. However, the effect of angling is one potential impact which can be relatively easily addressed. There certainly is increasing angler usage of these fisheries, so that even if angling pressure is not a significant factor at present it may well become so.

Whether the big fish are the result of the presence of special genetics which result in large size or simply because environmental conditions are conducive to continued growth is unknown. It is a risk that if the former, selective removal of trophy fish may eventually remove those genetics which promote large size from the population. This narrowing of available gene stock could have serious consequences for future management as a trophy fishery.

To maximise the future opportunity to catch trophy trout it is perhaps prudent to remove few if any of the larger fish.

While protection of the trophy fishery is obviously desirable there is no evidence to suggest that removal of limited numbers of smaller fish would be detrimental to the fishery. Studies suggest in the U.S.A., catch and release only leads to an increase in the availability of trout once angling mortality exceeds 25% of the total population mortality. Whether this is applicable to New Zealand is unknown but it seems unlikely that anglers would kill 25% of all fish which die in the Rangitikei. Radway Allen who studied production of trout in the Horokiwi stream, calculated natural mortalities beyond the end of the first year of life amount to about 80% of what is remaining of the year class, each year. Dr Bob McDowall in his book "Trout in New Zealand Waters" suggests that it probably doesn't matter much if these losses are the result of disease, predation or capture by anglers.

Changes in angling mortality would probably make little difference to the overall mortality rates in the population for the young year classes. Max Burnet, showed cropping could actually improve the trout fishery in the South Branch of the Waimakariri river, near Christchurch.

Allowing a limited catch means anglers who have walked into the rivers are able to keep one or two fish to eat. These people will have had to walk for several days to get to these rivers, and will have carried as little food as possible. It would seem unnecessarily restrictive to disallow the taking of a trout by such trampers if the fishery can withstand some angling pressure.

By permitting one or two fish to be kept, rather than imposing a total catch and release policy, the actual angling mortality may not be increased by much at all.

It is recognised that, while most fish released using proper techniques survive, there is still some resultant mortality from catch and release angling. If a fish is unlikely to survive because it has been badly hooked it seems wasteful to release it simply because the angler is not permitted to keep any fish.

Any catch and release restrictions imposed on these remote fisheries would be largely unenforceable and so would rely on the co-operation of anglers. Those who would abide by the restrictions may already practise a catch and release philosophy anyway.

These fisheries are a special experience offering the chance to catch trophy fish in remote surroundings. If an angler wants to fish for the freezer then the much more accessible and prolific Lake Taupo and Rotorua fisheries will satisfy such demands.

There is no justification for keeping the limit of 8 fish per day per angler.

#### MANAGEMENT OPTIONS

If the perception of reduced trophy availability is real and is caused by excessive angling, then reduced harvest will increase the availability of big trout.

A number of management options exist which address the issue in slightly different ways. Which option is selected depends on what actions are seen as necessary to maintain the quality of the fishery and what sort of experience the fishery should provide. For example, should anglers be able to fish these rivers knowing they can keep fish they catch or is there a bigger demand for a fishery where anglers know they have a greater chance of hooking a trophy fish and are happy with just a photograph and the satisfaction of success?

With any option restrictions are largely unenforceable in such remote surroundings. What is important is the attitude with which the angler approaches the fishery.

The real effect of a reduced bag or catch and release policy is as a message to the angler that the fishery is something special; that the angler should be particularly thoughtful about the impact of their actions on the fishery.

Managers and anglers need to determine what the underlying goal of any change is, then select an option which ensures this objective is met.

Taupo fisheries staff suggest it comes down to whether total protection of the trophy fish is deemed essential to maintain the viability of the fishery or whether a few fish can be removed from the river each year without compromising the fishery.

These two goals are mutually exclusive; any management option cannot meet both objectives.

Staff considered the following to be the range of available options:—

#### **NO CHANGE**

(A) STATUS QUO — eight fish per day limit.

#### REDUCED FISH KILL

(B) REDUCED BAG LIMIT

(C) RESTRICTED SLOT LIMIT e.g. one to two fish per day between 350-600mm long could be taken. Could be modified by allowing each angler to take one fish greater than 600mm per season.

#### **NO FISH KILL**

- (D) TOTAL CATCH AND RELEASE
- (E) CLOSE THE FISHERY

Other options exist which might reduce the fish kill, but at the end of the day the options listed appear the most practical and effective means of achieving the particular objectives.

#### THE EFFECTS OF EACH OPTION

OPTION	Allows Fish To Eat			Reduces no. Fish Taken
Status Quo	Υ	Υ	N	N
Reduced Limit	Υ	Υ	Р	Υ
Restricted Slot Limit	Υ	N	Υ	Υ
Catch & Release	N	N	Υ	Υ
Close the Fishery	N	N	Υ	Υ

Y = yes, N = no, P = partial.

Changes made to the regulations to further restrict the fish kill need not alter the experience offered by the fishery and if the changes are to have any significant impact at all it would be to the benefit of the fishery and the anglers using it.

As managers of the fishery within the present Central North Island Wildlife Conservancy Council region we recommended to the Taupo Ward either;

- (A) a restricted slot limit, where for example one or two fish longer than 350mm but smaller than 600mm in length could be kept in one day.
- (B) the present size limit be retained but the number of fish which could be taken reduced to one or two fish per day.

The department felt both options would be practical and effective measures to conserve the qualities of the fishery and still allow for the taking of a trout for a camp meal.

Adoption of either policy would be advantageous to aerial transport operators as it would create a unique 'official' wilderness trophy fishery which could be promoted as such.

In October 1988 the recommendations and supporting discussion were put to the Taupo Ward of the Central North Island Wildlife Conservancy, as the anglers representatives, for consideration. The Ward reported back at their meeting in November with strong support from their constituent clubs for a reduced limit but very little support for a total catch and release restriction or slot limit. A remit was put forward seeking to change the daily bag limit on the Rangitikei and Ngaruroro rivers to two fish per day, while retaining the existing size limits. This was considered by the full council at their meeting in January and the remit passed.

As of 1 October 1989 the daily bag for the headwaters of the Rangitikei and Ngaruroro rivers which fall within the Rotorua Fishing District is two fish per day as defined in the Rotorua District Anglers Notice 1988 Amendment No.1.

It is pleasing to note that the Wellington Acclimatisation Society has adopted the same limit for the lower reaches of the Rangitikei to also come into force in October.



FIVE FRESH FISH HEADS, TRICK CREEK CAMPSITE FEB 1989. OVER FISHING COULD PLACE THE FISHERY AT RISK.

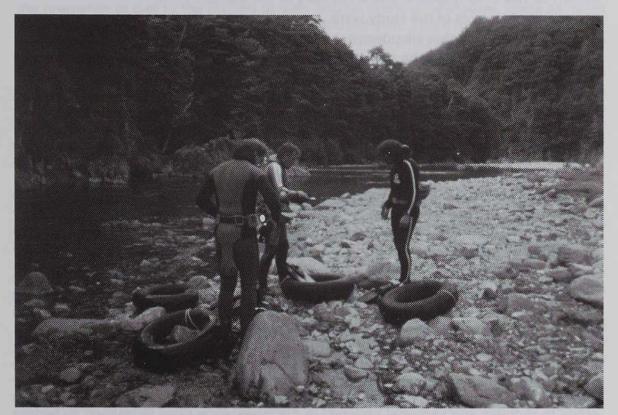
#### NOTE

In February 1989 a team of Department of Conservation divers spent several days in the upper Rangitikei counting trout at several sites established in 1982. The surveys covered half the total length of the fishery that lies within the Conservancy and showed that the numbers of large rainbow trout (those over 40cm in length) averaged 10.7 per km of river over the 10.65 km drift dived. This average is similar to averages obtained for past surveys. Approximately 20km of fishing water exists in the main river above the Waiporutu confluence. At 10.7 fish/km there is a total population in the mainstream above the confluence of approximately 215 large fish. It is very definitely a finite number.

The impression of the dive team was that all pools one would expect to hold large fish did in-fact hold good numbers with the exception of several kilometres of river in the immediate vicinity of the Trick Creek campsite. The accompanying photograph taken at the campsite perhaps explains why!

This survey is planned to be repeated in February 1990 after the headwaters have been subject to most of a season with the reduced bag limit. The results will be interesting.

Under the new conservation law reform bill, management of this area will become the responsibility of the new fish and game council for the Wellington region some time next year.



EVEN IN FEBRUARY, THE DRIFT DIVERS WERE RELUCTANT TO ENTER THE WATER.

## GUEST ARTICLE By Wayne Fraser, Forest Research Institute.

#### SIKA DEER RESEARCH

The Forest Research Institute (of the Ministry of Forestry) is currently engaged in several ongoing sika deer research projects.

This article outlines past, current, and future directions for research on sika deer to inform hunters about what sort of information has been collected and the likely priorities in the future. A noticeable change in the last few years is the nature of the research. Whereas in the past scientists often collected information that was "nice to know" (basic research), current research effort is aimed at providing answers to questions of direct relevance to managers (applied research). Previously, sika deer have been considered a minor species and there has been little research done on them. The only significant period of work occurred in the early 1960s. This included a 3 year observational study of habitat use in the Oamaru Valley, a study of the overall status and distribution of the species, and a study of dispersal distances covered by marked sika and red deer. More recently however the profile of the species has been raised for a number of reasons, including their valued status by recreational and safari hunters. This is reflected in the renewed research interest in the species.

#### **RUATEA STREAM STUDY**

The main research project commenced in 1986 and was designed to study seasonal changes in distribution and habitat preferences of sika deer in the Ruatea Stream (also known as Jap Creek) catchment, a tributary of the Oamaru River.

The major objectives of the study were:

- 1. to investigate whether sika deer habitat preferences varied between seasons; and
- 2. to investigate whether the density of sika deer in the study area was influenced by accessibility to hunters.

The principal technique used in the study was faecal pellet counting, concentrating on one catchment. The study area was not chosen because of high deer numbers, but rather because it was typical of much of the Kaimanawa RHA and therefore any findings should be applicable over this wider area. In addition, because hunters generally used only one travel route into the catchment there was a distinct gradient in accessibility which was essential to the second objective of the study.

The size of the catchment is about 2000 ha and within this area 54 pellet lines were established. Each pellet line had 56-86 permanently marked individual plots regularly spaced at 10m intervals. Each plot was marked by a numbered peg and every 3 months the area within a 2.2m radius of the peg was searched thoroughly and all deer pellet groups recorded. The pellet lines covered a range of altitudes, aspects, accessibility, and habitat types. Using this information a picture can be built up about where deer are concentrating their activities at particular times of the year. In addition, detailed records of the vegetation were made at 131 sites throughout the catchment. Based on this information we identified 8 major habitat types in the catchment.

The number of pellet groups found depends not only on the number of animals present in an area but also on the disappearance rate of the pellets. The disappearance rate reflects how quickly the pellets either decay (break down) or are covered by other material (principally leaf fall from the beech forest canopy). Considerable effort was made to monitor any seasonal changes in disappearance rates in relation to factors such as altitude, aspect, rainfall, and leaf fall. This data is then used to calibrate pellet counts for changes in disappearance rates between seasons.

During the second year of the study 8 additional pellet lines were established on the Oamaru river flats and in the adjacent manuka habitat. One of the most interesting findings so far is the contrast in habitat use between the present and in the early 1960s. In those days hunting pressure was lower and there was considerable movement of deer (both sika and reds) from the forest to the manuka habitat and river flats during the spring and summer months. Currently, greater hunting pressure means deer movements are far more restricted. Minimal use is made of the grassy river flats despite the plentiful food supply. Instead, seasonal changes in distribution occur on a smaller scale and are generally restricted to altitude and aspect shifts within the same catchment.

Field work for this study was completed in October 1989 and analysis is proceeding. We will make the results widely available to hunters through articles in this and other

hunting magazines.

#### OTHER LINES OF RESEARCH

Several other lines of research have developed from the above study and the recent increase in importance of sika deer.

An important factor in habitat selection by deer is food availability. Therefore, diet information would be useful in understanding the patterns in habitat use that we have observed, and we have begun collecting gut samples for analysis. To date, the gut samples have come from deer shot in the catchment by field parties during our regular seasonal pellet counting trips and from hunters we encountered in the catchment who have co-operated by taking samples from deer they have shot but we need many more.

You may notice that over the next few months information boards and gut sampling kits will appear in most of the huts in Kaimanawa Forest Park. Hunters will be encouraged to assist in the collection of gut samples from any sika and red deer they shoot. Besides the relevance of diet to the Ruatea Stream habitat preference studies, these samples will also be used to compare the diets of sika and red deer. This may help to explain why sika predominate in some areas and red deer in others. It may also explain why sika are invariably in better condition than red deer in the same area.

Information on population age structure and condition of deer is being obtained by collecting jawbones. A molar tooth is sectioned and annual growth rings used to estimate age, and the jaw length is measured and compared with the population average to ascertain the individual's growth rate and condition. This information is useful for comparisons between deer populations in different parts of the area, and will also be compared with data from jawbone samples collected in the 1960s. We expect to find that deer currently grow faster and to a greater size than in the 1960s when deer densities were higher and food scarce.

Another major investigation has involved the analysis of kill tallies from official culling in the Kawekas over the period 1958-88. Over this period the proportion of sika shot has increased from around 10-20% in the early 1960s to about 70% by 1988. This indicates that sika populations are likely to continue displacing red deer in some areas although it is unlikely that they will completely replace red deer. In addition, it would be reasonable to expect that sika will continue to disperse naturally into new areas including the Urewera, Hauhangaroa, southern Ruahine, and Tatarua Ranges.

Anecdotal evidence from recreational and commercial hunters suggests that hybridisation between sika and red deer may be both more common than previously thought and also vary in extent between different parts of the sika range. This would be an interesting aspect to investigate in the future.

For several of the above investigations we will need a lot of help for the projects to be successful. In return, we are confident that the better understanding of the deer populations and their environment will result in better management, and also help develop a more widespread awareness that recreational hunters provide a significant and virtually cost-free management force, particularly in the more accessible areas.

#### SUCCESS ON THE TONGARIRO

Every year on six days selected at random in August, the Department of Conservation carries out an intensive angling survey on the Tongariro river. Anglers fishing on these days are approached by a conservation officer and asked a number of questions about their fishing, and any fish they have caught are weighed and measured. From the data collected fisheries management staff gain important information about the fishery and the people using it. This year 574 anglers were interviewed and the following article takes an in-depth look at some of the catch rate statistics which are dervied from the survey.

In a fishery of the magnitude of Taupo it is not possible to determine the total number of fish present. Historically, catch rate (or catch per unit effort), as determined by dividing the total number of fish caught by the total number of hours spent fishing, has been used as an index of fish numbers. It is assumed that catch rate is proportional to the number of fish available to anglers, hence the higher the catch rate the more fish that were in the river or lake.

In this way the fishery of the 1980's can be compared to that of earlier years. However much of the historical data can only provide a general indication. Because of variations in the way it was collected or recorded, there is no way of determining how much confidence can be put in the figures derived.

With a little thought it is readily apparent that many other factors can influence catch rates between years, quite independent of whether there is any change in fish numbers. To be a useful management tool the effects of these outside influences need to be reduced or removed. Careful survey design and data analysis can break down the overall catch rate into a whole series of catch rates all providing clues about different aspects of the fishery.

Undertaking the survey during August each year when runs of fish can be expected to occur at frequent intervals, often independent of the weather, removes the effect of seasonal variation. An extreme illustration of poor survey design would be trying to compare a survey carried out on the river mid-winter one year with a survey done over the following summer.

Careful survey design may also minimise the effects of weather. By choosing six days at random we hope that some of these days will fall during flood recessions (and possible good fishing), and other days will fall during long fine periods. Over the years there should be a reasonably constant mixture.

Choosing more days would strengthen this assumption but additional survey days are expensive. Each additional day increases the precision of our estimate by less than the one before and a trade off must be made between the extra confidence and cost.

Anglers often suggest we should try to pick the periods of the peak runs. However, in actual fact it is likely that angling during low clear water conditions is a better indication of how good a year it has been. Even in a poor year, such as 1988, the peak runs are very large, but there may be very few fish present outside of these periods.

#### THE TONGARIRO IN 1989

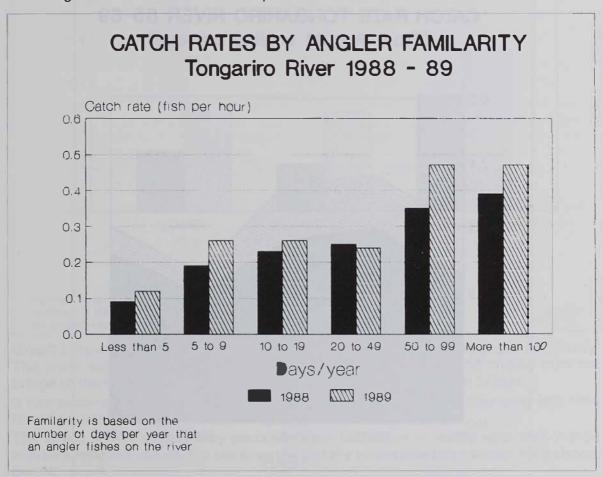
Results of this year's angling survey on the Tongariro river showed an improvement in the fishing over last year with an increase in the catch rate from 0.20 fish per hour in 1988 to 0.26 fish per hour this year. In simple terms this meant an angler fishing in 1988 could expect to fish for five hours to catch one fish whereas this year they would need only four hours to take that fish.

The survey has been carried out annually since 1985 and the best catch rate recorded was in 1986 when anglers had a rate of 0.3 fish per hour or one fish for every three hours twenty minutes of fishing. However, the lowest rate was recorded last year coinciding with a very poor year class returning to spawn in the river, probably as a consequence of a major summer flood in 1986. This swept the fingerlings from the river before they were large enough to flourish in the lake.

More detailed analysis of the data collected can provide managers with an insight into many aspects of the river fishery.

#### **FAMILIARITY WITH THE WATER**

As with most other trout fisheries the new angler is not treated kindly by the Tongariro, despite the common perception. While there is some correlation between catch rate and an angler's trout fishing experience (total number of years fishing), familiarity with the Tongariro itself is much more important.



Graph 1 shows the more often an angler fishes the Tongariro the greater their individual catch rate on the survey day.

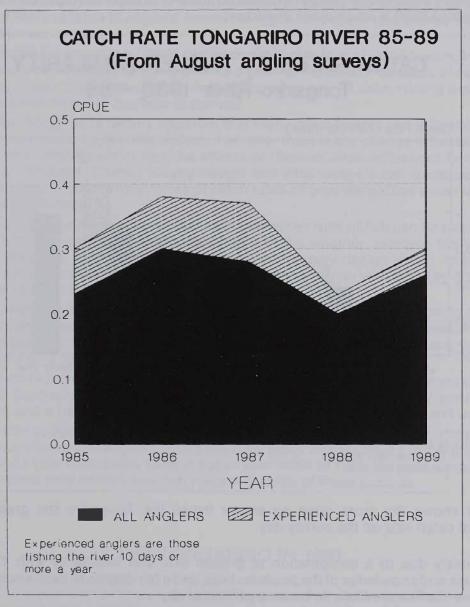
This is likely due to a combination of greater skill and familiarity with Tongariro techniques and knowledge of the pools and lies, and a fair degree of local knowledge—just where the fish are likely to be on a particular day.

On any day of the survey it is evident those anglers who fished the Tongariro river on at least fifty days a year could expect to catch four fish for each one taken by a person fishing the river for the first time.

There are exceptions of course; one of the most successful anglers encountered this year was a visitor from Nelson having his first two days on the river who found that some of the experience and skills derived on Nelson streams were just as applicable to the Tongariro.

Obviously the overall catch rate will be affected by how many anglers are encountered who fall in the group who spend only a handful of days a year on the Tongariro. This group as a proportion of the total number of anglers will vary as the popularity of angling rises and wanes, as economic factors affect peoples' ability to travel, and according to whether it is a good ski season and so on.

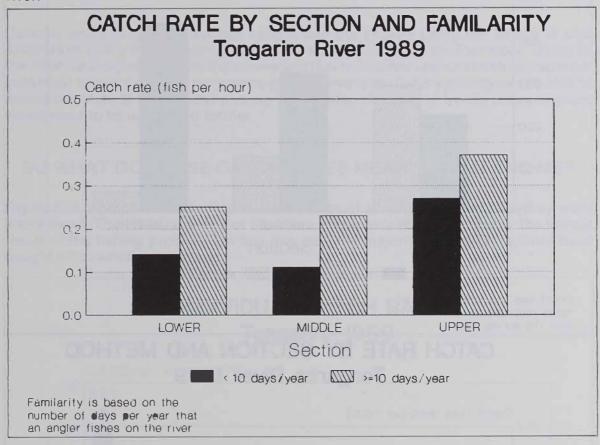
To overcome this problem, the catch rates of only those anglers who fish at least 10 days a year on the Tongariro are calculated. Managers can be more confident that variation in the catch rates of these anglers reflects a change in the number of fish available. In 1989 'experienced' anglers had a catch rate of 0.30 fish per hour compared to 0.23 fish per hour in 1988.



Graph 2 showing the variation in catch rates between 1985 and 1989 for both experienced anglers and all anglers.

#### THE AREA FISHED

Fish are rarely spread throughout the whole river, particularly when the runs are small. It was noticeable that this year, many of the trout entering the river to spawn passed up the river very quickly, and did not "hold" before arriving in the top reaches. Catch rates in the survey reflected this, with the section above the Red Hut footbridge having a catch rate one and a half times that of the sections below. 1989 saw a very mild winter with low river flows, and many of the fish may have been keen to get about spawning as soon as suitable flow conditions occurred to provide the stimulus for them to enter the river.



Graph 3 showing the catch rate of the three sections broken down by angler familiarity. The lower section is that part below the main highway bridge; the middle from the bridge to the Red Hut footbridge and the upper above the Red Hut bridge.

It has become evident over the past few years that the fish are spending less time holding within the legal winter fishing water.

The effect is that anglers may perceive fewer fish when in reality what they notice maybe a reduced availability because the fish are vulnerable to an angler for a shorter period.

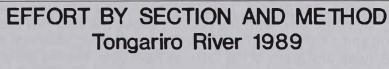
#### METHOD

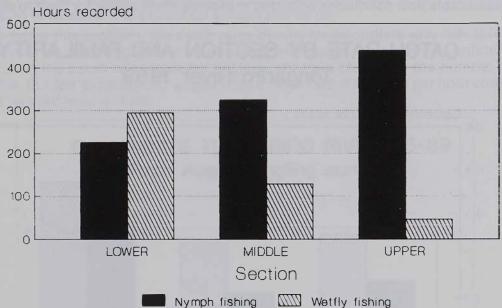
In recent years nymph fishing has dominated the angling scene on the Tongariro with 80 per cent of anglers interviewed in 1987 using the technique.

However, this year there has been a swing back to wetfly fishing with 36 per cent of anglers interviewed fishing this eay. It may well be that anglers are returning to wetfly fishing because they enjoy it more, having experimented with nymph fishing in previous years.

There was a perception by some anglers during the height of popularity of nymphing that the method was more successful under all conditions.

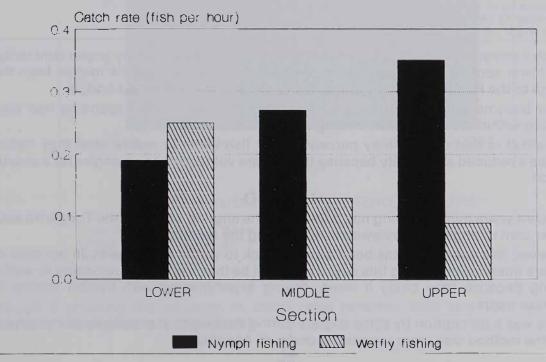
Indeed, in 1989 the overall catch rate of all nymph anglers was 0.29 compared to 0.20 for wetfly anglers. However, the following graphs show how these figures are somewhat misleading.





Effort was the total number of hours recorded for each section over the survey days.

#### CATCH RATE BY SECTION AND METHOD Tongariro River 1989



Graphs 4 and 5 showing the effort recorded in each section for both methods and the average catch rate for each method by section.

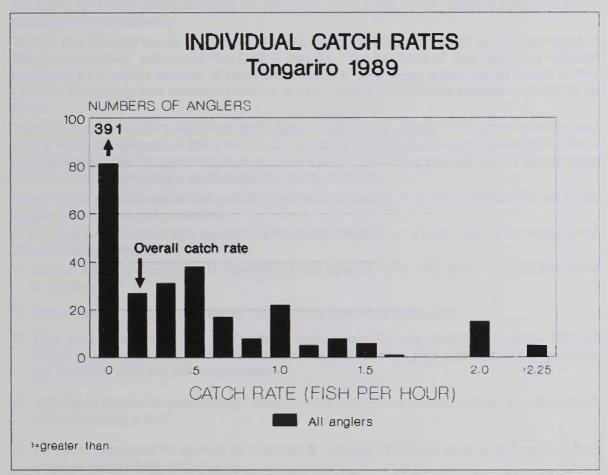
In the lower river, wetfly fishing was both more popular and more successful than nymphing, whereas, in the upper river, particularly over the low clear flows experienced on most survey days, nymph fishing was (not surprisingly) the way to go. Both methods excel under particular conditions and exponents of either method can reasonably expect to take fish when conditions are suitable.

#### **USE OF THE STATISTICS**

Detailed analysis of both the fish caught and the anglers using the fishery is also undertaken using data collected during the survey, but that's another story. Using all the information gleaned from the survey and that from other sources such as trap runs, individual anglers' diaries, comments and observations; fishery managers are able to assess the state of the fishery, picking up possible changes or trends between years which need to be addressed further.

#### SO WHAT DO THESE CATCH RATES MEAN TO YOU AND ME?

Figure 6 is a graph of the individual catch rates of all anglers at the time they were interviewed. The unusual shape of the curve is characteristic of all years; the logical result of the fishing process. On any one day, the majority of anglers will not have caught a fish when interviewed.



For the successful anglers, individual catch rates are likely to be high for no angler can catch a fraction of a fish, they either have none or they have one or more.

For example an angler fishing for an hour will either have a catch rate of zero if they have been unsuccessful or, of 1.0, 2.0, 3.0 etc if they have caught fish. None of these results is close to the mean (0.3). For this reason the rarity of very low catch rates is exactly what one might expect: the only way to have a catch rate of 0.1 is to fish for 10 hours, and only take one fish — not too many anglers will tolerate that sort of fishing for that length of time!

It is evident that very few anglers on any one day will experience the average catch rate. This statistic is simply a summary of the fishery; an increase in which may indicate an increase in the number of fish available to anglers.

In 1989, 67 per cent of all anglers interviewed had caught nothing, a similar proportion to all previous surveys. 16 per cent of the anglers had taken 75 per cent of the fish — shades of the old adage?

#### NOTE

The average fish taken in 1989 was 543mm long and 1.95 kilograms in weight. In the five years since 1985 the average length has fluctuated between 530 and 543mm and the weight between 1.81 and 1.96kgs.

#### HELICOPTER HUNTING

The sight of a helicopter flying low along bushline in the mountains sparks outrage in most sport hunters. In many ways, sport hunters have every reason to feel such anger as helicopter hunting has been responsible for a large reduction in deer numbers and subsequent loss of recreational hunting opportunities.

But on a more positive note, a large reduction in animal numbers over a sustained period (10-15 years in many places), has allowed an improvement in habitat condition. Today many of New Zealand's deer herds enjoy quality nutrition reflected in larger body weights, increased fecundity and better trophy potential.

There is little doubt that todays wild venison industry is much reduced from that of 15 years ago. Deer numbers have been heavily reduced and running costs are high, while meat prices have improved relatively little. There are still those helicopter operators who can continue in the industry, however most have had to diversify into agricultural work, contract flying and recreational hunter servicing. Venison recovery, although a vital part of their operation could not continue without this other work and similarly, without venison recovery, the economic viability of their other work is reduced.

For the thousands of hunters who utilise helicopters as a means of access to the backcountry, this is an important fact to remember.

Within the Tongariro/Taupo Conservancy of the Department of Conservation a highly significant level of animal control on the Conservation estate can be achieved by recreational hunting. Helicopter hunting is utilised only in areas where specific conservation values require additional protection. For example the Lakeshore reserves, where although red deer numbers are low, venison recovery is permitted on the basis that feral goats are also removed from the area, which is almost impossible to ground hunt effectively.

Within the Conservancy however, there is considerable mountain and forest land in Maori ownership, adjoining the D.O.C. estate. The trustees of this land see venison recovery as a useful source of revenue. Tenders have been taken up on much of this land for the spring and summer months, and successful tenderers have every right to be there.

Many complaints were received last season regarding illegal helicopter hunting and many more are expected this year. Upon investigation of some complaints last year, it appeared that the recreational hunter, with a D.O.C. hunting permit, had in fact strayed across a boundary and was himself the party at fault.

Many other reports appeared genuine but lack of details meant identification, let alone prosecution, was not possible.

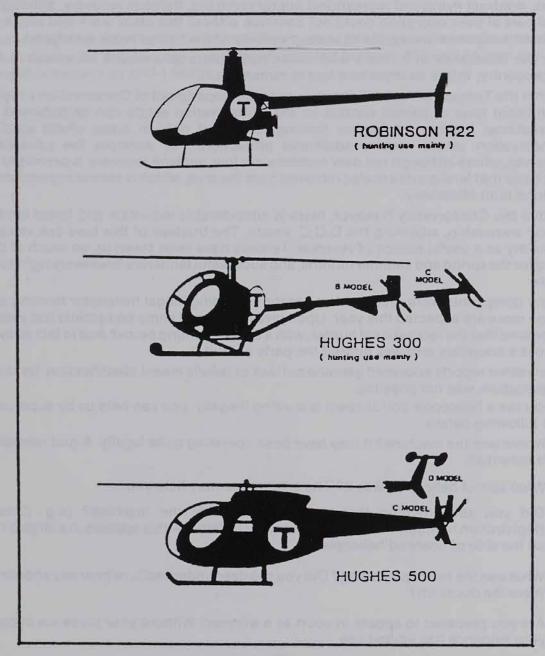
If you see a helicopter you suspect is hunting illegally you can help us by supplying the following details:

- 1. Where was the machine? It may have been operating quite legally. A grid reference is essential!
- 2. What sort of helicopter was it? The silhouettes may help you.
- 3. Did you see anything that could help identify the machine? (e.g. Colour, Registration number, Wild Animal Recovery ID letter this appears in a large circle on the side of licenced helicopters).
- 4. What was the helicopter doing? Did you see deer underneath, or hear any shooting? Were the doors off?
- 5. Are you prepared to appear in court as a witness? Without your presence in court your evidence has limited use.

Next time you see a helicopter you suspect is hunting illegally, do something positive about it. Firstly, be sure you know where you are so that you don't accuse an innocent operator; and secondly, supply D.O.C. with the above details as soon as possible. You could even make a stand by boycotting operators you suspect of poaching. Venison recovery is only a part of most helicopter operations.

But also remember there is considerable private land in the central North Island. Your use of much of this land may have been ignored in the past but times are changing. Land management practices on private wild lands adjoining the D.O.C. estate are the business of the land owner, and conflicts with users of the D.O.C. estate may mean greater restrictions and stricter policing in the future.

Your D.O.C. hunting permit confers no right to enter, cross or hunt on private land so please familiarise yourself with all boundaries and respect the rights of land owners or leasees. These rights include the right to earn revenue from venison recovery on land which has otherwise very limited revenue potential.



#### **SOMETHING FISHY**

If you are fishing on Lake Taupo during December you may well be approached by a Conservation Officer and asked to stop. Don't be alarmed, you are just part of the Department's annual December angling survey. You will be asked a few questions regarding your fishing and any fish you may have caught will be weighed and measured. It is very similar to the survey carried out on the Tongariro in August each year, the results of which are discussed in 'Success on the Tongariro' in this issue.

The information we get is very important for the management of the fishery so if you are approached, please stop and wind in your lines. We will try to keep the interruption to your fishing time as short as possible.

A very successful Saturday seminar was recently held for members and associates of the Taupo Ward of the Conservancy Council.

Organised by local DOC staff, the day was intended to inform ward members of fish and game issues and provide feedback between resource users and managers. The format used was a mix of lectures, videos and field visits and was well received. Topics covered included fish and game reorganisation, compliance and law enforcement, development of the National Trout Centre, angling access and willow control, game management and fisheries surveys. The day finished with an informal discussion and social hour.

These days will become a regular feature of liaison between DOC and fish and game users. The next one will be held before the middle of next year.

There have been several changes in the DOC structure locally as a consequence of a national reorganisation of the department begun some months ago.

DOC now operates as a 3-tier rather than 4-tier organisation, having a head office in Wellington, 14 conservancies (replacing the old 8 regions) and a number of field centres or work stations. The big difference is the disappearance of the former districts.

Locally there are some major changes. The former Taupo and Tongariro districts have been amalgamated into the new Tongariro/Taupo conservancy. We are no longer a branch of Waikato, but report directly to head office. This will mean a greater degree of responsibility and decision making authority at the local level than previously occurred, and consequently better service to our clients and the conservation estate.

The new conservancy office is based in Turangi and the old Taupo district office has closed.

Heading our new organisation is Regional Conservator Paul Green, formerly the Tongariro District Conservator. He is assisted by 6 managers, each responsible for a particular group of functions. Those appointed so far are Lee Busby (Operations), Paul Dale (Protection and Use), Dave Wakelin (Advocacy), John Gibbs (Fisheries) and Ray Hine (Finance and Business). Yet to be named is an office/personnel manager.

Those other DOC staff whose job and location remain substantially unchanged have been reconfirmed in their old positions. However, appointments are yet to be made to number of new, reorganised or relocated positions. This should be completed by Christmas and will include the managers of the field centres located at the Taupo native plant nursery, Turangi, Whakapapa and Ohakune.

Conservancy fish and game staff were sad to farewell Kevin O'Connor who many local anglers and hunters will remember as having done so much for their sport while he was District Conservator at Taupo. However, Kevin is embarking on a new branch of his career as Operations manager in Nelson Conservancy.

We join you in welcoming Paul Green into the fold and already he has taken a great interest in fish and game matters.

The Conservation Law Reform Bill was recently introduced to Parliament and has been referred to a select committee for submissions. Of particular interest to anglers and hunters are the provisions relating to the management of fish and game.

The present 22 acclimatisation societies and 2 conservancy councils will be replaced by up to 12 regional fish and game councils. These bodies, elected by licence holders, will be responsible for managing sports fish and game birds. A national fish and game council will advise the Minister of Conservation on policy issues, recommend licence fees and advocate the interests of game shooters and anglers.

The exception to this new structure will be the Taupo fishery which will continue to be managed by DOC. Gamebird management in this area will be the responsibility of a neighbouring regional fish and game council.

DOC is presently working with Taupo ward members to prepare recommendations for a future fishery user group to advise the Minister and ensure continued angler input locally.

A new provision in the bill requires the preparation of policy statements, strategies and management plans for sports fish and game resources. This will provide an even greater opportunity for independent user involvement than has existed in the past.

Government policy decisions and amendments to the Conservation Act last year introduced provision for the charging of resource rentals for trout fishing competitions organised for promotional or fund raising purposes. The rental recognises the benefit the competition promoters gain from use of a publicly-owned resource and allows a fee to be set as compensation for this use.

So far this year, two fishing contests have been promoted at Taupo which meet the criteria for a resource rental. The first was the annual Taupo International organised by the Lake Taupo Promotional Association. The second was the Kinloch Country Club competition.

With the latter event, DOC staff arranged with the promoters to spend the fee on a fishery project of direct benefit to the Kinloch and Western Bay area. It was agreed that planting of the newly acquired reserve on the banks of the lower Whangamata Stream would be an appropriate use. The Whangamata is the most important trout spawning tributary at the northern end of Lake Taupo and has been badly degraded by land development. Progressive protection through the Lake Taupo catchment control scheme and acquisition of Crown reserves has seen the numbers of spawning trout increase from a low of about 100 to some 2000 fish.

The fishing contest money was used to purchase native plants and a Saturday working bee saw a good turnout of anglers and Kinloch residents to dig them in. Future community support will be sought to complete the planting over the next few years. Eventually the valuable trout spawning stream will be fully protected and the Kinloch community will have a scenic reserve of their own creation.



KINLOCH RESIDENTS, DOC STAFF AND LOCAL ANGLERS GET TOGETHER TO PLANT THE LOWER WHANGAMATA STREAM.

Information about illegal activities is only of use when it is passed on immediately.

Please contact law enforcement staff: —

Dan Delaney Phone 68607 wk 68305 home

Brian Taylor Phone 68607 wk 67121 home

Ken Short Phone 85450 wk 85829 home ANYTIME

#### WINTER HUNTING SUMMARY

Winter is traditionally a comparatively quiet time of the year and this is reflected in the number of permits issued for the June to September season. A total of 1268 hunters obtained permits for the season, a little over half the number hunting in the Taupo district for the roar.

Hunting is also a little slow during the winter season and this was reflected in the diary returns received to date. A total of 395 diaries went into the prize draw bag on 22 October representing 32% the total number of issues for the winter season. These diaries recorded 216 kills (165 Sika, 35 Red, 7 pigs and 9 goats) for 984 mandays hunting. 37% of diaries received recorded at least one kill.

Of interest was the fact that even some of the regularly successful hunters missed out on a kill, which indicates the difficulty of locating animals over the winter months.

Some of the locals however, reported good numbers of animals, especially Sika, in the lower altitude beech/hardwood forest between the Hinemaiaia and Waimarino rivers in the northern Kaimanawas. Many of these animals appear to move out into the pines once spring begins in earnest, but its certainly an area worth keeping in mind for next winter.

A total of 31 jaws were collected from the RHA over the period bringing the sample for 1989 to 125 so far, with the productive spring months still to come. We will try to get the information relating to your jaws back to you as soon as possible.

The winners of the prize draw for the winter diary season are as follows:—

1st Prize — Helicopter transport with 'Helisika' (value \$770.00) B.J. HINZ of Inglewood 2nd Prize — Sporting Goods from 'The Fly and Gun Shop' (value \$100.00) STUART GERRITSEN of Hamilton

3rd Prize — Weekend accommodation for 4 at Sika Lodge (value \$96.00) J.F. RADLEY of Rotorua

Congratulations to the successful hunters and thanks to all those who returned their diaries. Special mention must also go to Jeff Willis of Kinloch who was top gun for the winter with 24 animals. These included 15 Sika, 3 Red and 6 goats. Not a bad effort for 16 days hunting!

There are still many hundreds of diaries out there that have not been received for one reason or another. Maybe you don't trust us still, or maybe you just forgot! We do remind you that the quality of the information we can give to you relies on the quality of the data you provide in your hunting diaries.

If you have a diary from the autumn or winter season lying around, please send it in. You have missed out on a chance at the prize draw for this season, but the information is still useful.

The table overleaf gives you a summary of the data obtained from the winter diaries. It probably has little relevance to the spring hunting but will be a useful source of reference for next year. Official hunting is also included for your interest.

One disappointing fact on the diary returns this period was the sighting of a goat(s) off the Te Iringa track in the RHA. The hunters concerned were reasonably confident it was alone however a small mob of domestic goats were seen on Clements Road near the farmland earlier this year and this animal, a black wether, could have originated from that source. The establishment of feral goats within the RHA could have serious consequences both ecologically and for Sika hunting interests so your co-operation in reporting all goat sightings or kills would be appreciated.

And finally, if you are wondering where to go for the spring-summer season this year, try a trip over into the upper Waipakihi valley of Kaimanawa Forest Park. The river side tussock and scrub provided many hunters with great hunting for both Red and Sika deer in late November last year. Mid December will be worth a trip into the headwaters of the Rangitikei above Ecology Stream, and by January the alpine growing season will see deer out and about above bushline over most of the southern Kaimanawa mountains. GOOD LUCK.

				_						_		
AREA	BLOCK	MANDAYS HUNTED			NTERS PIG	GOAT	SIKA	KILLS RED		GOAT	DAYS PER ENCOUNTER	DAYS PER KILL
	ALL	264	163	61	5	0	36	15	2	0	1.2	5.0
	WAIPAKIHI	70	36	14	0	0	10	6	0	0	1.4	4.4
	KIKO RD	39	37	7	0	0	7	0	0	0	0.9	5.6
	WAIMARINO	6	7	0	0	0	0	0	0	0	1.2	
KFP	T/TAUPO	31	32	0	0	0	6	0	0	0	1.0	5.0
	TIRAKI	14	11	7	0	0	2	2	0	0	0.8	3.5
	DESERT RD	29	8	1	0	0	0	1	0	0	3.2	
	UMUKARI	27	14	13	0	0	4	3	0	0	1.0	3.9
	RANGITIKEI	4	2	7	0	0	1	1	0	0	0.4	2.0
	ACCESS 10	27	12	9	5	0	4	2	2	0	1.0	3.4
	ALL	418	389	15	6	*2	87	6	1	0	1.0	4.5
	CLEMENTS RD	174	181	3	6	*2	43	0	1	0	0.9	4.0
	HINEMAIA	52	49	2	0	0	10	2	Ö	0	1.0	4.3
	OAMARU/KAIPO	31	16	0	0	0	3	0	0	ō	2.0	10.0
KRHA	CASCADE	44	33	5	0	0	6	2	0	0	1.1	6.0
KINIA	JAP CREEK	12	17	0	0	0	6	0	0	0	0.7	2.0
	MERRILEES	38	30	2	0	0	6	1	Ö	0	1.2	5.4
	UPPER/OAMARU	7	5	1	0	0	0	0	0	0	1.2	
	TIKITIKI	25	18	2	1	0	4	1	0	Ō	1.2	5.0
	UPPER/KAIPO	35	40	0	0	0	9	0	0	0	0.9	3.9
RESERVES	ALL	5	0	0	5	20	0	0	5	7	0.2	0.4
RANGITAIKI	ALL	13	4	0	0	0	2	0	0	0	3.3	6.5
TOTALS	DISTRICT	984	587	85	19	23	165	35	7	9	1.6	4.6
			OFFICI	AL HU	NTING							
	KURATAU	8								262		
	PUKAWA	2	(HRS H	ELICO	PTER)					14		
LOCAL	OKAWA	2								15		
RESERVES	ARATIATIA	1								12		
	PIHANGA	10								18		
	WAIHORA	1							4			
TOTALS	DISTRICT	22	(+2 HR	S HEI	TCOPT	ER)			4	321		

<sup>\*</sup>Black wether seen twice in Te Iringa area.

#### CHILDREN'S FISHING DAYS GAINING POPULARITY

Kids fishing days at the Tongariro National Trout Centre ended for the season on a high note on Sunday, September 24, when 300 children caught 300 rainbow trout, including the king of the pond, a 1.8kg rainbow male.

The attendance continued the trend of increased numbers throughout the season and brought the tally to 1616 children on the five days between May and September that the fishing days are staged, bettering tallies for the previous six years by over 300.

The fishing days have been organised and run by members of the Tongariro and Lake Taupo Angler's Club (TALTAC) assisted by Department of Conservation staff since 1983. Children aged between 6-14 years are given angling tuition and then try their luck at the poolside until they catch a trout which is weighed, measured and taken home with a certificate recording the occasion.

The pond is specially constructed and landscaped for the purpose and the trout are raised for an extra year beyond the customary age of one when most stocks are released, bringing them to an average size of 450 grams and making them a worthwhile catch for a young beginner.

While the increasing popularity of the fishing days is good for the sport of trout fishing and for conservation in general, it places an increasing load on the 30-40 volunteers needed to run it each day — one could say 'the sore backs are a draw back.' TALTAC's organiser for the last seven years, Mr Pat Nicholas, is reluctant to stretch his helpers further for fear of losing their support. Perhaps some other way can be found to spread the load and cater for the rising demand to sample 'the gentle art.'



Success for a budding angler.

#### **BITZ'N'PIECES**

#### **RUBBISH BAGS**

Over the next couple of months conservation staff will be instigating a new rubbish control system in back country huts within the conservancy. Small multiwall paper rubbish sacks, designed to fit inside your pack, will be made available via special dispensers in all huts.

This initiative is part of a wider long-term strategy aimed at phasing out rubbish holes on the conservation estate. Earlier this year the conservancy also produced plastic rubbish sacks designed for use by the clients of aerial ferry companies and this will continue in conjunction with the dispensers at huts.

Your co-operation in ensuring our wilderness areas remain litter free is appreciated.

#### **HUNTING PERMITS**

Your central North Island hunting permits now allows you to hunt over all Conservation estate in the Tongariro/Taupo Conservancy for up to four months based on the three seasons:

October-January; February-May; June-September.

The completion of the hunting diary is a vital part of the permit system providing important harvest and effort data, and helping to highlight the significant role recreational hunting plays in the management of animal populations in this part of the country. The data must be accurate and complete if the information is to be useful so please, fill out and return your diaries at the end of each season. You never know, you might win one of the great prizes up for grabs!

Hunting permits are available at the Turangi, Ohakune, and Whakapapa Department of Conservation Offices, and for those of you travelling through Taupo, at The Fly and Gun Shop, Air Charter Taupo, Lakeland Helicopters, or at Sika Lodge on Clements Road.

For Taumarunui hunters, permits are available at Taumarunui Sports Centre.

#### TONGARIRO RED DEER

It is hoped that over the next twelve months the recreational hunting potential of the Tongariro Red deer herd can begin to take on a higher profile amongst the hunting fraternity.

There are many exciting prospects within the Tongariro area including some very fine trophies.

We have recently analysed a jaw sample from some 120 red deer shot by recreational hunters in Tongariro National Park and we hope to bring you this information and more, in the next issue.

In the meantime, if you are interested in checking out some new country, a late spring or summer trip into the "Hauhangatahi Wilderness Area" is well worth a look. Dawn and dusk can be very rewarding along the scrub edges above bush line!

#### TONGARIRO FOREST GOAT CONTROL

In August this year the Taumarunui Rod, Rifle and Gun Club undertook a goat control operation in Tongariro Forest. The Club, one of the main user groups of the area, was not happy at the prospect of DOC allowing a venison operation into the area on the basis that goats were also destroyed, so they got into the act themselves.

Forty two hunters on the Saturday, and thirty six on the Sunday accounted for 228 goats and a red stag over the weekend. It is rumoured that the exercise will become an annual event. Best billy head was taken by Mark Neill who collected the trophy kindly donated by Sporting Life in Turangi.

Local DOC staff would like to congratulate the Taumarunui Rod, Rifle and Gun Club and all the hunters who participated, on a job well done.

#### WILDLIFE OBSERVATIONS

The Department of Conservation, having established a comprehensive data-base of blue duck field observations, is now looking for information on other protected species in the Tongariro/Taupo Conservancy. By mapping sightings of rare and endangered wildlife the Department can build a better picture of the various wildlife populations present which will help with future management and ensure their continued survival.

The assistance of hunters and trampers in the blue duck recording system was invaluable and it is hoped that the interest these user groups have shown can be utilised for other species.

How can you help? By reporting sightings made of blue duck, kiwi, kaka, native bats and New Zealand falcons, you can help build up the data bases for these species.

Numbers seen or heard and an approximate grid reference should be forwarded to the Turangi Office. You can do this via phone, letter or on your hunting diaries.

Your assistance is greatly appreciated.

## TAUPO DISTRICT FISHING LICENCES 1989/90

The Turangi office of the Department of Conservation has taken over the printing and distribution of Taupo Fishing licences as from July last year. Previously both the Taupo and Rotorua licences were administered by the Department of Conservation in Rotorua.

This has entailed the department entering into new agreements with licence agents requiring greater accountability by the agents but in-turn providing agents with a much improved service.

Some agents have not been prepared to accept the conditions offered, but the Department feels that licence revenue must be better protected so that the level of bad debts which previously existed is reduced.

As a result anglers in some areas experienced difficulty in buying a Taupo licence for the new season but as individual concerns between licence agents and the Department are resolved, new agencies are opening.

All transactions are now done on computer providing agents with tax invoices and credit notes, along with a new design for the statement of sales and credit forms.

One advantage of a computerised system is that the records of individual agents are readily available. This makes it very easy to service the agents promptly. Reconciliations of previous sales and orders for more books can be done over the

phone, providing the agent with a continuous supply of licences but ensuring there are never huge amounts of money outstanding with the associated risks that carries. After all ten books of adult season licences are worth nearly \$4000.00.

Appendix 1 shows a graph of the fishing licences sales returns so far this year.

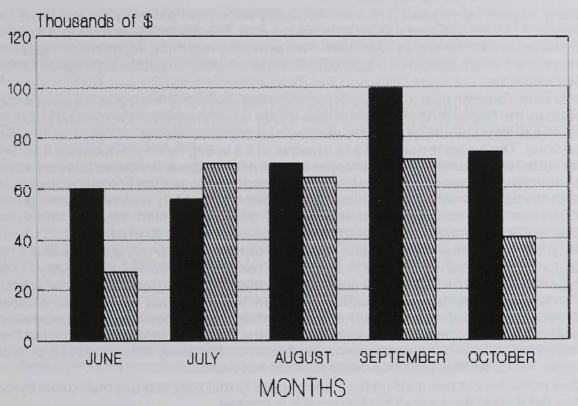
Since last year the entire cost of fishery management, administration and research has had to be funded totally from licence revenue, with no additional input from departmental votes.

Prior to the new fishing season, managers develop a budget to manage the fishery over the coming season. A prediction of licence sales is made and from this licence fees are set to cover the amount of money required. It is important that sales figures are available through the season, so managers can adjust spending depending on whether the revenue received is likely to meet that budgeted for.

For the 1990-91 season, we are looking at improving the format of the licences, exploring the possibilities of printing whole season licences on waterproof paper, making day licences more attractive as a souvenir, simplifying the synopsis of the regulations printed on the licence and so on. There are a lot of improvements that can be made, and your input is very welcome.

For any further information contact Marilyn Brown in our Conservancy office in Turangi.

## TPO FISHING LICENCE TREND 1989/90



This Year

Last Year

#### SPRING SMELTING

For the Taupo angler who perhaps is starting to tire just a little of standing waist deep in a cold river wrapped up against the elements, spring offers an opportunity to explore other fishing techniques.

From October through to April adult smelt (a small whitebaitlike fish) congregate in the stream mouths and along Lake Taupo's sandy beaches to spawn. Typically spawning begins in the Tokaanu tailrace and along the lower western shore several weeks before other areas around the lake. This start of spawning coincides with the return to the lake of many of the trout, spent after their own spawning during the winter. Smelt are the most important component of the trout's diet in the lake and the concentrations of smelt in the shallows provide a ready food source for these trout to feed on as they attempt to recover condition.

This event, often characterised by the sight of a trout slashing around in only a few centimentres of water, is referred to as 'smelting.' Anglers pursue these fish either from the shore or from a boat (harling). When smelting trout are encountered the action can be fast and furious and even though many of the fish taken will be in poor condition, there will often be splendid maiden fish amongst the catch, and the angler will have a day to remember.

#### HARLING

From October to February, peaking in November, trolling a fly or lure along the shallow margins can be extremely effective. Success is greatest in the early morning or late evening and normally during the brighter part of the day the fish move deeper and greater success can be had using a lead line. However particularly if the day is overcast with some ripple on the water, harling may be successful at any time, so if you see action on the surface give it a go.

Many anglers use a small 3 to 4 metre dinghy which can be easily launched off the beach, powered by either a small outboard or oars. The advantage of rowing is that the fly swims in an erratic, pulsed motion — more like the real thing. Normal harling speed is about walking pace but be prepared to mix it up until to you get the right speed for the particular day.

The most common gear is either a flyrod and a fast sinking fly line, often the same setup used by the angler on the Tongariro over winter, or a flyrod loaded with a line made up of one to two colours of leadline with several hundred metres of nylon or braided backing. The leader is normally 3 to 5 metres of 3.5 to 6kg nylon to which two flies or a fly and a lure are tied, one by a dropper several metres above the other. Flies are smelt imitations. With a sinking flyline the normal practice is to put the line out to the splice with the backing: with a harling line put the lead line and fifty metres of backing out. There are many variations of these rigs and the way in which they are fished, for example some anglers prefer longer leaders, so be prepared to experiment.

Most harling is done over the sandy beaches, further out over the shallow weed beds and along the drop off or close in around the rocky promontories. Often early in the morning the fish will be right in along the beach moving out as it gets lighter. Sometimes it seems harling further out even when the fish are evident in close produces better fish. Rather than harling in a straight line, follow a weaving course and alter the speed occasionally so as to break up the pattern of movement of the fly. The inside rod when turning a corner will sink deeper and similarly the outside rod will rise closer to the surface better covering the different depths.

One of the joys of this method for many anglers is that they can use their usual flyrod and get a good fight out of the fish once it is hooked.

Even when the action is slow, not much beats chugging quietly along on a calm spring morning on Lake Taupo.

#### STALKING THE SHORE

Fishing from the shore to smelting trout can be very rewarding one day and extremely frustrating the next as fish after fish ignore everything thrown at them.

During October to December a common technique is to drive the eastern shore of Taupo in the early morning checking the sandy bays and river mouths for sign of smelting trout — either vigorous swirls on the surface or as dark shadows moving across the bottom. Polaroid glasses are a must and if no fish are seen the angler drives on.

Once fish are found the angler using a flyrod and floating flyline or a spinning rod (as long as they are 300 metres from any stream mouth) casts to specific fish. Using a long leader of 4 to 5 metres the angler places a smelt imitation a few metres ahead of a cruising fish then retrieves using a rapid strip motion. Many anglers in the excitement of seeing a fish pursuing the fly have a tendency to slow the retrieve but unless the fly is kept moving quickly the fish is likely to lose interest.

Often the fish move in and out of casting range quickly and the angler must cast as soon as the trout is seen. The more successful anglers often stand poised to cast until they see the fish and make the cast with a minimum of false casting. Because speed is of the essence, use flies which are tied in such a way as not to tail wrap. Nothing is more frustrating than having trout swirling all around and having to retrieve the fly to unwrap the tail before the cast can be made.

In the clear shallow water the fish will spook easily so use long fine leaders and small flies (tied on size 8 and 10 hooks) and keep false casts off the water.

Smelting trout are often in loose schools and action may last for 10 minutes or an hour or more. On a large sandy area you will need to follow the fish as they move along the beach. Thigh boots make walking easier and allow adequate wading depth. Once the action slows an angler can decide whether to wait on the chance another school will move in or try another spot.

This method is most commonly practised in the early morning, partly because that is often when the trout are in the shallows, but also because it is usually calm and the fish visible. However feeding can occur at any time and anglers should always be ready to take advantage should smelting fish suddenly appear on the beach beside them.

At several spots along the shore the deep water comes within a metre or two of the edge and during the day some good fishing can be had fishing deep with a fast sinking flyline and smelt fly or a red setter. At such places as the west side of Whakamoenga Point, Two Mile Bay boat ramp Wharewaka Point or off Tokaanu Wharf it is possible to fish without getting your feet wet.

Some areas around the lake come into their own if a strong wind blows from a particular direction. Along the eastern shore a useful wind is a southerly to sou-westerly blowing straight up the lake. On the northern side of rocky points such as Mission Point an area of quieter water is created into which the smelt seek sanctuary closely pursued by the trout. With winds from any direction anglers should seek these quiet corners in amongst the turmoil. Over shallow areas use a floating or slow sinking line but in deeper water use a fast sinking line unless the fish are visible on the surface.

This article is intended to give an angler unfamiliar with smelting an understanding of how to approach this method of fishing. By applying these basics an angler can hopefully make a reasonable fist of their first few attempts. The article deliberately doesn't detail specific fly patterns, rigs or places, for discovery of these is part of fishing. Think about the different areas of the lake shore, where and what you see other anglers doing and experiment yourself to come up with your own favourites.

#### **CROWDING ON THE TONGARIRO?**

The following report was presented to the Taupo Ward of the Central North Island Wildlife Conservancy Council by Mr Alan Simmons, a delegate from the Professional Hunting Guides Association. It expresses his personal opinions about overcrowding on the Tongariro River. The ward spurred by this report have decided to hold a forum in Turangi on the 12th May 1990 to discuss the issue of crowding on the river.

This report should not be seen as necessarily reflecting the views of the Department of Conservation or of the ward — we are simply reprinting the report on behalf of the ward and in the interests of stimulating discussion so that interested anglers can have an input. Any correspondence should be addressed to:

The Secretary Taupo Ward, C.N.I.W.C.C 99 Rokino Road Taupo

## THE TONGARIRO RIVER IN THE 1990's. BY ALAN SIMMONS

During the winter of 1989 many of the problems that have been building for the last few years finally surfaced into some very ugly confrontations. Many were the horror stories from irate anglers about the inconsiderate attitudes and bad sportsmanship of a large number of anglers. The results of which is resolve by the genuine sportsperson to never fish the Tongariro again.

This is bad news for both the business community, D.O.C. and the tourist industry. I personally was requested to escort a tour group somewhere else this year because "they were sick of the hassles of fishing the Tongariro." This group has travelled to N.Z. to fish for the last six years, always at Turangi. I estimate a total of \$30,000.00 was lost to Turangi plus a number of month licence sales.

What has caused this problem?

- 1. Fishing has grown at a phenomenal rate in the last 3 years and fishing on the Tongariro is a perceived status symbol in some areas.
- 2. Due to this there is a large increase in the number of inexperienced anglers.
- 3. There is not enough river to accommodate this big increase in angler numbers.
- 4. Changes in fishing methods and increased mobility of people. Less experienced anglers can for a moderate expense catch fish. These same people with modern transport can be in Turangi in 4 hours from two major cities and many in between. They never fish anywhere else.
- 5. Sedimentation of the river and low flow regimes have changed the way the river fishes causing people to congregate in the more popular pools.
- 6. The fame of the Tongariro is such that with modern jet aircraft people from all over the world can travel to fish in a very short space of time. And the fishing is so cheap it isn't funny. These same people convince their friends that it is cheaper to fly here and fish than in their own country. They then return with five friends.
- 7. Other regions close most of their water during the winter to protect spawning trout.

I believe we are giving away an incredible resource to the world. Overseas visitors should have to pay more or at least employ N.Z. resident guides so that the resource benefits the country.

One of the problems of overcrowding is that fewer people can catch fish due to the fact that a pool can't be fished properly. An example would be the Cliff pool with 16 rods in it. At the most a four rod pool. Two fish were caught for a whole morning session. A person coming out from the head of the pool would have to wait for up to an hour before they could again get into the bottom, and then fish for an hour before being able to move up into the productive water. This is nonsense and frustrating to say the least. Of course those in the water are reluctant to move too fast because they will end up sitting on the bank for an hour or so.

#### SO WHAT IS THE SOLUTION?

- 1. Restrict various fishing methods to different parts of the river.
- 2. Create new fishing pools by mechanical means.
- 3. Try to convince anglers to fish outside of peak times.
- 4. Convince other regions to open more water to winter fishing.
- 5. Educate anglers to be more considerate.
- 6. Restrict the number of anglers within a pool.
- 7. Open the Tongariro for fishing right up to Beggs pool.
- 8. Open other waters.
- 9. Restrict anglers by only issuing a limited number of special weekly licences.
- 10. Allocate pools by ballot for the early morning session.

All of these suggestions carry with them problems in both administration and implementation, and also are undesirable in that they restrict one of our great assets; freedom. However, some of them are feasible and would assist in better fishing for all.

#### THEY ARE:

2. Create new fishing pools by mechanical means.

By creating new holding lies we could conceivably increase the amount of room on the river by 100 per cent. I have considered the major pools for nymph fisherman on the upper river from the main road bridge upwards and would beg to suggest that 50 odd anglers is maximum to allow for good and successful fishing.

A number of 82 anglers would see a lot of overcrowding. Below is a summary of the pools and the number of rods these can hold. Whitikau 4. Blue 4. Boulder 8. Fan 2. Breakaway 8. Cliff 4. Potu 3. Red Hut 4. Dutchess 10. Silly 2. Upper birch 2. Birch 4. Cattle Rustlers 2. Admirals 4. Hydro 2. Major Jones 6. Lonely 4. Bridge 3.

It would seem to me that the river would be quite crowded should this number of anglers be in those pools and if I was to find eight rods already in the Boulder I would look elsewhere. The total number of rods in the above list is 82.

Accommodation houses promote several hundred beds on the promise of good fishing (amongst other attractions). Private holiday homes also attract hundreds whose sole purpose in having their batch is fishing. Taltac and other clubs have accommodation all based on fishing. If 82 rods on the upper river is a crowd no wonder competition for fishing water turns into confrontation. So by creating new holding lies we could increase the fishability of the river by at least this amount.

Electricorp could also be seen to be assisting with preservation of the river by contributing to the cost of removing some of the sedimentation in desirable areas. Large machinery could be used to scoop out the gravel in areas where no environmental damage would take place and by placing large boulders in these areas new fishing would be created. They would be doing what nature would do if allowed. The anglers would be happy, Electricorp would be happy for obvious reasons. I must state clearly that only areas where no environmental damage would take place should be considered and each new pool would be decided on after consultation.

4. Convince other regions to open more water to winter fishing.

Try to get other areas to open more water for winter fishing. I believe there are many places in the Rotorua area that have no good biological reason why they should be closed. Mostly it's because it has always been so.

Open the Tongariro up to Beggs pool for winter fishing. In consultation with the fishery managers I am sure more water could be opened without adversely affecting the spawning.

Should the Taupo Ward wish to consider these matters further I would be happy to consult with the fishery managers in putting a proposal before the ward.

I believe these matters must be addressed sooner or later and it would be most prudent to start the ball rolling now than wait until no one turns up one year and then take remedial action. The economy of this whole region is based on a good measure of visiting anglers, therefore for the good of us all we should be looking at every possible way to make their stay pleasant and rewarding. Many complain that the fish are just not in the river.

Well a visit to the spawning waters will prove that the fish were in the river it is just they weren't accessible to the angler for the very reasons this report outlines. It is in our hands to make the fish available.



INCREASING USE OF THE TONGARIRO IS BECOMING A CONCERN FOR SOME ANGLERS.

#### THINKING DUCKS IN NOVEMBER

How many duck shooters make a trip (or three) out to their maimais in early April each year to patch up the holes, clear off the shag dung and freshen things up for opening weekend? How many more intend to visit in early April, but between the 'Roar,' Saturday sport and so on, never make it until the days immediately preceding the new season? With so much activity in the weeks leading up to that first Saturday in May, it's no wonder many of the birds are already safely parked up in a sanctuary somewhere come the big day.

It's the smart shooter that does the major construction in the spring and allows this handy work a summer of growth to blend it into the surroundings.

Now is the time to be thinking ducks! So that next season all that is required is a visit on pegging day and an hours minor maintenance. Give also a thought or two as to how you might enhance your shooting spot. By planting the right species around your wetland you will supply your game with added incentive to visit. Shelter, appropriate overhead cover and perhaps even some food species could make all the difference.

The Department of Conservation can help you select the right species to plant and give advice on how and where to plant them to achieve the best results.

The Departments native plant nursery at Taupo can supply these species at the best possible price, and their expertise and advice is free!

Over the next few issues of 'Target Taupo' we will bring you a series of articles which may help you enhance your little corner of the shooting world for both the short and long term benefits of your game birds.

But in the meantime do that building, digging and cutting now! While you're at your maimai decide if and how some enhancement work may help. You never know, at the end of the day it could improve your shooting!



BY MAY 5TH NEXT YEAR THE MAIMAI IN THE FOREGROUND WILL BE JUST ANOTHER PILE OF LOGS. IN THE LONGER TERM SOME CAREFUL PLANTING TO PROVIDE COVER AND NESTING AREAS WILL FURTHER INCREASE THE POTENTIAL OF THIS SPOT.

#### **MANAGER PROFILE**



Paul Green is based in Turangi as the new Regional Conservator for the Tongariro/Taupo Conservancy.

Paul spent his early career at Tongariro National Park with spells at Ohakune as a Ranger and then a term at Whakapapa Village as Senior Ranger and Acting Chief Ranger. This was followed by two years at Auckland working in the Hauraki Gulf as Chief Ranger and six years at Te Anau as Chief Ranger for Fiordland National Park. In 1986 he returned to Tongariro National Park as Chief Ranger. With the advent of D.O.C. in 1987 he became District Conservator (Turangi) for the Tongariro District.

Whilst at Ohakune Paul spent 6 months on an exchange programme with New South Wales. Paul has spent much of his life in the back country of New Zealand with a special interest in tramping and climbing. He notes he has much to learn with respect to fisheries management and the sport of fishing.

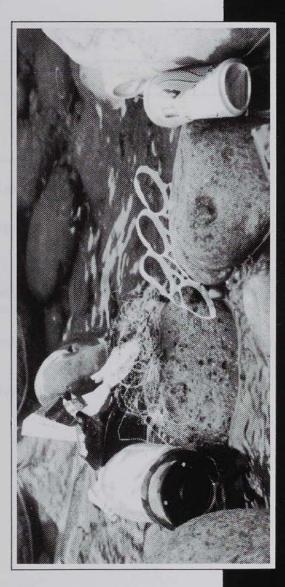


Glenn Maclean is part of the Taupo fisheries management team with key responsibilities for the monitoring of the fishery and fisheries investigations.

Glenn grew up in Whangaroa and completed a Msc in freshwater biology at Waikato University, then worked as a professional fishing guide in Rotorua before joining the department in 1987.

When Glenn is not involved in the management of the resource he is using it, either as an ardent angler, gamebird hunter or deerstalker.

ANYWAY TO TREAT A FRIEND?



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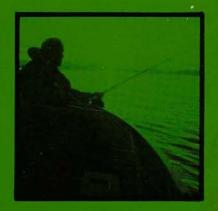
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