

Fishing was the next most important activity with lazing about accounting for 13.2% of the time for known time of year. The overall mean for hunting (which includes the unknown time of year group) does not differ to any great extent from the mean for the known time of year. The difference between these two means is only .4%.

### 13. INTENDING TO HUNT ON STEWART ISLAND AGAIN

Respondents were asked if they personally plan to hunt on Stewart Island again? 98% said they intended to hunt again with 2% of respondents indicating they would not be back. Of this 2%, three of the four parties saw on average 4.2 animals per party while the remaining party saw some 50 animals and cited the high travelling costs for not returning to hunt on the Island again; this party spent a total of four days travelling to and from Christchurch. All four parties shot animals.

Those parties that saw no animals ( 10 parties), all stated that they intended to return to Stewart Island to hunt again.

The high indication of respondents intending to return to hunt on Stewart Island again may be related to hunter success; 83% of parties shot animals. However, the number of non-successful hunters returning to hunt is also an indication of the attraction of the Island. If the ratio of animal sightings to hunters present dropped, it is probable that the number of hunters returning to the Island to hunt would drop and the attraction of the Island may decline.

An American survey (Stankey, Lucas, Ream) reported that 60% of unsuccessful hunters weren't sure if they intended to hunt in their survey area again; and of that number, 45% cited the lack of animals and poor hunting as the reason for not returning to hunt. In this survey, 100% of the unsuccessful hunters intended to return to Stewart Island. This is probably due to Stewart Island being the only location with sufficient numbers of whitetail deer to ensure hunter satisfaction and success rate.

There appears to be a considerable attraction of hunters to the Island, not only for those hunters on their first visit but also for those hunters on their second or more hunting trips. 45.7% of respondents indicated that members of their hunting party were on their first trip to the Island and 22.7% on their second trip. An additional 31.6% were on their third or more trips to the Island. The greatly increased kill rate between 1975/76 and 1980/81 (from .57 to .90 animals killed per hunter) may be directly due to the number of those who had hunted on previous occasions returning to hunt for their second or more times.



#### 14. LEVEL OF HUNTING EXPERIENCE

To gauge the level of hunting experience, respondents were asked to indicate, in their opinion, the level of hunting experience of members of their party. 55.1% considered members of their party as experienced hunters with those of average hunting ability representing 27.9%. Those who had only limited hunting experience represented 17.0%.

This question is regarded as subjective. It is not suggested the hunting ability of respondents is in question, but the level of hunting experience even to a competent hunter in one part of New Zealand is not relative to Stewart Island. The level of hunting experience increases only through several trips to the same or similar locality.

The increased kill rate per hunter ( from .57 to .90) may be a direct result of hunters experienced to Stewart Island conditions. Several comments (pers coms) from long time hunters of Stewart Island indicate that one trip is generally needed to get the lie of the land, and an additional trip is required to the same block to take advantage of the knowledge gained during the first trip. This comment is only relative if hunters can obtain a hunting permit for the block of their choice. 59% of respondents indicated that they obtained their first choice of hunting block. Second and third choices of hunting blocks were obtained by 20% and 11% of parties respectively. This reflects the popularity of most hunting blocks. 10% of hunting parties had no choice as to hunting block.

This question received several comments from respondents. Considerable criticism was expressed at blocks being booked and parties not uplifting their permit. It was suggested that a fee be payable at time of confirmation of a hunting block and refunded on the uplifting of the hunting permit or on the return of the permit after hunting. It is not known how many hunters booked blocks and failed to utilise that permit. The very suggestion of a fee, even if refundable, is obnoxious to many hunters and against the general principle of free hunting. But, some consideration has to be exercised for the benefit of all users and those hunters who are obviously more sincere in their hunting intentions than those who are not, and those that wish to cover all their hunting options. Unrefunded fees could be used to maintain Island facilities.

#### 15. STEWART ISLAND HUNTING BLOCKS

While the block and permit system works well in general, it does have the disadvantage of small parties occupying large blocks. From a management point of view, it is inefficient to have a party of two hunters occupying a whole block for a period of say seven days, when two or three parties of the same number of hunters per party could hunt different parts of the same block in complete safety.



Several respondents suggested the size of the blocks remain as at present with larger blocks being sub-divided to suit individual party size. Larger parties, for example of five to eight persons, could occupy a whole block.

It would be important to ensure the number of hunters per block is not too high as to deter hunters who as a hunting party wish to experience the "back to nature" experience. In addition, the more hunters per block, the greater the chance of firearm accidents, an important aspect due to the remoteness of many blocks.

The potential of the recreational hunter is at present under utilised as large areas receive little or no hunting, then the hunters are criticised for the lack of hunting effort and contribution to overall deer control.

There are now two blocks (Kelly's and Abrahams) which are able to be hunted on an open system; a permit to hunt is still required although there is no limit on the number of hunters on each block at any one time. The blocks will be monitored over a five year period in conjunction with the adjacent 1080 poison trail blocks to see if hunters are able to reduce animal numbers to an acceptable level. For these open blocks, the onus of reducing deer numbers is on the hunter.

From this survey, there were several hunters who were unaware of these open blocks even though they had been "open" for over twelve months. However, by far, the majority of respondents who know of the open blocks expressed concern and opposition to them. The main reason cited was the risk of firearm accidents and the aspect of going hunting on Stewart Island "to get away from it all" and not to share blocks with a large number of other hunters. One respondent indicated he was going to avoid the open blocks "like the plague."

Several respondents commented on the general lack of information from the Forest Service on the approximate locations of higher than acceptable deer numbers as well as basic hunting information on whitetail deer. Any leaflet on deer movements would soon date unless it was in a form easily updated. These areas of higher deer numbers within hunting blocks should be pointed out to hunters when uplifting permits.

On basic hunting information on the whitetail deer, there have been several combined New Zealand Deerstalkers Association and Forest Service publications, the latest as a supplement to issue 63 of N.Z. WILDLIFE magazine. A basic hunting leaflet such as those for red deer, thar, sika etc., could be enclosed with hunting permits.



## 16. CONTROL OF HUNTING

Answers to the question, "do you consider greater control of hunting would improve conditions?", were required in two parts. Firstly, a yes/no answer, and secondly any comments. No attempt was made to explain the question in detail or of any indication as to the type of comments required. The wording was adopted to provoke thought on the part of the respondents. By this method, answers stereotyped along the wording of the question were avoided. Only 10.5% expressed no comment.

For the yes/no answer, 65.2% said no additional control was required. One respondent summarised the whole question when he commented "the more rules there are, the more rules that can be broken." In spite of this, some controls are necessary and the majority of respondents indicated that present controls are adequate. 24.3% agreed to greater control.

Several respondents thought greater control of hunting was required to the present hunting block system, which they thought gave some degree of protection to the deer. One respondent said quote, "the situation is like a merry-go-round. The block system limits the number of hunters on each block at one time and the open blocks are avoided. For both systems assuming open blocks are avoided, the Forest Service implies hunters are unable to control deer and resorts to 1080 poison."

No question was included on the use of 1080 poison as it was felt that the inclusion of a question related to the use of poison would almost certainly have indicated total opposition. However, in view of the large number of respondents who expressed concern and opposition to the use of 1080, some comment is necessary.

42.4% of respondents indicated opposition to the use of 1080. There was no outright support for its use although one respondent indicated that in certain circumstances it may have to be considered.

There were many suggestions as alternatives to 1080; some of these include:-

- open more and smaller blocks;
- ballot popular blocks;
- offer incentives to those blocks that receive little hunting;
- control multiple and extended booking of blocks;
- payment of tokens;
- the waiving of the two night limitation on huts during the winter months to encourage hunter usage at that time of the year;
- a short annual cull on those blocks considered to have too many deer, and to encourage a greater kill rate on those blocks;
- a competition between hunting parties be organised;
- subsidise the cost of transport to hunting blocks.



The taking in of hunters has been tried and largely abandoned for a variety of reasons. However in the Stewart Island situation it has some merit; it would be an incentive to attract hunters during those parts of the year when hunter usage is lowest, particularly the period of June through to the end of October.

If the use of 1080 poison became widespread, recreational hunting would cease to be a viable Stewart Island industry.

The present hunting system basically controls itself with the majority of hunters playing the game. And the few that are not prepared to play the game are probably not prepared to under any system.

Other comments indicated more hunter involvement and less Government control; most felt that greater co-operation between the Forest Service and individual hunting parties could improve the problem of reducing animal numbers in localised areas.

## 17. LAND OPTIONS

Land is held by the Forest Service (25%) and the Department of Lands and Survey (72%). The remainder is Maori land and incidental land parcels.

To gather an indication of the level of support from hunters, a question covering the two main land tenure options and a third option for the status quo was included.

Table 11: Land tenure options for members and non-members of hunting organisations. (n parties).

	National Park	Forest Park	Status quo	Combination	Unanswered
Members	9	18	68	2	2
Non-members	14	18	74	1	4
Party numbers	23	36	142	3	6
%	11.0	17.1	67.6	1.4	2.9

Table 11 was significant at 1%; the values of less than five were not included in the chi-square test.

Respondents gave a clear preference for the status quo with support for the forest park option at 17.1%. Only 11% of respondents supported the national park option. The combination category was for those respondents who indicated a choice of two of the three options and 2.9% felt they had too little information to comment.



The opposition to the extension of national parks is in general, due to the extermination provision of the National Parks Act, which stipulates the extermination of all introduced flora and fauna. However, the Act allows for relaxation of the extermination provision but the Authorities have always refused to use discretionary powers in connection with any aspect of deer and deerstalking activities, whereas the rules are openly seen to be "variable" when it comes to intrusions made by other recreational activities on a commercial or non-commercial basis. It is well known that other conservation groups favour the national park option as it is believed that security from exploitation is greater under that option than under forest park status.

## 18. RECREATIONAL HUNTING AREAS

The question, "do you support the concept of a recreational hunting area on Stewart Island?" resulted in an overall level of support of 68.6% in favour and 19.5% opposed. 11.9% were not sure what recreational hunting areas were, or were not prepared to indicate their support or opposition without additional information.

This question was inserted for two reasons:-

1. To have a general indication on the level of support for or against recreational hunting areas even though the wording of the question specifically related to Stewart Island.
2. And to gauge the opinion and the value hunters place on recreational hunting on Stewart Island. For this reason no specific suggestion was made as to location or size of any suggested recreational hunting area.

The whitetail deer on Stewart Island presents the only herd of this species in adequate numbers in New Zealand to warrant the establishment of a recreational hunting area. The high recreational value of this animal is well known by hunters, and according to the Forest Service, most blocks are usually occupied for most of the year.

Table 12: Indication of support and opposition to a recreational hunting area on Stewart Island by members and non-members of hunting organisations.

	Members		Non-members		Total	
	n. parties	%	n parties	%	n.	%
Supporting R.H.A.	70	70.7	74	66.7	144	68.6
Opposing R.H.A.	17	17.2	24	21.6	41	19.5
Uncommitted	12	12.1	13	11.7	25	11.9
Total	99	-	111	-	210	-
%	-	47.1	-	52.9	-	-



While the overall support for a recreational hunting area on Stewart Island is nearly 70%, several respondents indicated their support provided the area was of sufficient size as to allow hunting to continue as at present. The main concern voiced about recreational hunting areas is that any reduction in the size of the area would lead to increased hunting pressure on a smaller area and the possible exclusion in other areas of the Island at present hunted.

While some respondents did not want any reduction in the size of the present huntable area, others suggested the whole Island should become one large recreational hunting area. The explanation as to why the whole of the Island should not become a recreational hunting area, is simply that other parts of the Island have their values which require protection. The remote southern end of the Island holds the key for the survival of the Kakapo and poses special management problems due to the presence of cats and rats. The presence of deer, even though in low numbers, increases competition for food between the deer and the surviving Kakapo. No question related to the Kakapo was included.

The accessibility to the Island and then on to the hunting blocks poses no problem. In the north, huts are inter-connected by an extensive tracking system. These trails are essential for those parties that choose to fly to one of the few landing areas to enable them to reach their allocated hunting area more quickly. Animal density in the North is reported to have an acceptable animal and vegetation balance (1976/77 and 1980/81 surveys of the State Forests).

In addition and importantly, the total servicing industry at Oban would benefit by an assured and stable income. This is an important aspect, as far as the permanent resident population is concerned traditional industries are rapidly being eroded as a diminishing resource and by high costs. The establishment of a recreational hunting area could play a large part in helping the Island's economy.

Although desirable, the likelihood of a recreational hunting area on the Island in the foreseeable future seems remote. The problem of shared land tenure, especially when the balance of this tenure is vested in the Department of Lands and Survey makes little chance of co-operation although the two Departments have co-operated in the gazetting of the Waiotapu recreational hunting area for Sambar deer at the foot of Rainbow Mountain (North Island).

Recreational hunting areas are supported in principle as long as they cover all the areas hunters use at present. However, respondents who are associated with present recreational hunting areas expressed opposition and caution on the grounds of excess regulations. There is greater support for the existing Forest Service system if some of the suggested improvements were implemented.



## 19. OTHER RECREATIONAL PURSUITS

As hunting is only one of the two main recreational pursuits available on Stewart Island, the following three questions were asked:-

1. While on your hunting block, did members of your party meet or see other persons?
2. What were the numbers of these people?
3. What were the activities of these people?

67.6% of hunting parties saw other parties while they were on their hunting block, and the size of these parties is shown in the following table.

Table 13: Group size of other parties seen and time of year (n parties)

Sighting in groups of:-

Time of Year	Less than Five	Less than Ten	Greater than Eleven	Total	%
M.A.M.	34	20	18	72	50.7
J.J.A.	16	3	1	20	14.1
S.O.N.	8	4	3	15	10.6
D.J.F.	8	6	8	22	15.5
Total	66	33	30	129	-
Unknown time of year hunted	7	5	1	13	9.2
Total	73	38	31	142	-
%	51.4	26.8	21.8	-	100.0

Of the 142 parties (67.7%) that saw other parties, 51.4% of other persons seen were in parties that numbered between one and five persons. The remaining two categories were similar at 26.8% for less than ten and 21.8% for people in parties greater than eleven.

In addition, respondents were asked to categorise the activities of these other parties, this is explained in the following table.

Table 14: Activities of parties seen and time of year (n parties).

Activities of Parties Seen

Time of Year	Hunters	Trampers	Other	Combination	Total
M.A.M.	14	24	13	21	72
J.J.A.	8	4	4	4	20
S.O.N.	3	4	6	2	15
D.J.F.	3	4	11	4	22
Total	28	36	34	31	129
Unknown time of year hunted	4	4	1	4	13
Total	32	40	35	35	142



The combination category consists of hunting parties who saw two or more different activities, as follows:-

- 24 sightings of trampers
- 37 sightings of other hunters
- 24 other, which respondents were asked to specify.

The sighting of hunters perhaps illustrates the mobility of hunters between blocks. This is partly due to hunters walking to or from their hunting block. Other hunters went exploring neighbouring blocks without rifles or visited adjacent hunters for a yarn. Eleven respondents commented on encountering poachers; some of these poachers had their own boat and appear to hunt where and when ever they wish. Not included within this category are helicopter hunters.

In the "other" category, the majority of sightings were of fishermen who pulled into bays for shelter at night or for a yarn; they represented 41.3%. Government employees, mainly Forest Service, Lands Department rangers and Wildlife Service Officers represented 31.7%. Tourists sailing around the coast of the Island added a further 11.1%. A farmer collecting "half wild sheep" was observed by three parties (4.8%). The remaining 11.1% represents bird watchers, divers and those whose activities were unknown. This group also includes a search and rescue party.

Sightings of trampers occurred over the whole of the year; only 30.5% of hunting parties sighted trampers. It must be emphasized that respondents were asked to indicate the activities of people seen, but this does not imply that all people outside of respective hunting parties were sighted.

Table 15: Sightings of trampers by hunters and time of year. (n parties).

	Parties indicating A sighting	Parties indicating No sightings	Total
M.A.M.	40	62	102
J.J.A.	5	29	34
S.O.N.	5	15	20
D.J.F.	8	25	33
Total	58	131	189
Unknown time of year	6	15	21
Total	64	146	210
%	30.5	69.5	-

The majority of tramping parties were sighted during March, April and May when 69% of the known time of year sightings occurred. 13.8% (8 parties) were sighted during December, January and February and equal numbers of parties (5) for the remaining periods of June through to November inclusive.

80% of the tramper sightings occurred to the north of Oban on the blocks Maori Beach around to Little Hellfire. Of the 51 tramper sightings in this group 70% were sighted on the blocks Maori Beach, Bungaree, Murray, Christmas and Lucky. The remaining blocks around to Little Hellfire represented the remaining 30% of sightings north of Oban.

An additional eleven tramping parties were sighted south and west of Oban, the majority being west of Oban on the blocks towards Doughboy Bay.



The Forest Service questionnaire in the Land Management Study (pages 201 - 207) indicated that out of 275 replies 5% (14 hunters) listed hunting as the main reason for them visiting Stewart Island. It is important to note however, that the survey was not taken over a full year and missed the full summer. Therefore, the survey must include the period of high hunter usage of March, April and May.

There are several possible explanations for this low (5%) hunter usage figure. Hunters arriving at Oban by ferry did not necessarily have the time to complete the questionnaire. It also missed an estimated 22% of hunters who went direct to their hunting block from the South Island. After returning from hunting, hunters were probably more concerned in reaching overnight accommodation at Oban or catching their return ferry or air transport to Bluff or Invercargill.

The Forest Service with its data on the total number of hunters should have been able to estimate what percentage of users are hunters in relation to the total return tickets purchased for ferry and air travel. It is known (pers coms) that a total of 23363 return ferry and air tickets were purchased in 1980. When allowances are made for residents and business people, one day and overnight trippers and children, the balance is approximately 7500 people.

At 5% of 7500 is 375 hunters, well outside the estimated total hunters who visited the Island. 1280 hunters were estimated to have hunted on Stewart Island during the twelve month period of this survey.

The importance of the Forest Service questionnaire is not in question as it is extremely important that information be gathered from all visitors to Stewart Island. Our concern is that the contribution of hunters, both to the Island's economy and as a major contributor towards overall control of deer, has in that questionnaire indicated that hunting on Stewart Island is of minor importance. The summary from that survey should be noted to represent hunters as 5% that responded to the questionnaire and should not be interpreted to represent hunters as 5% of total users, and the category "trampers" as 40% of users in that study does not distinguish between day track walkers from genuine trampers.

It is our belief that the hunter has not been fairly represented as the major New Zealand recreational user of Stewart Island and should be given far greater consideration in future planning.

## 20. COMMENTS ON CATS AND RATS

A very high proportion of hunters (93.3%) indicated their willingness to assist with cat and rat control although several asked how this could be achieved. Several respondents have approached the Forest Service and offered to lay poison around camp sites. Offers of assistance were declined, even to a qualified Pest Destruction Officer. The use of cage traps for cats was also suggested.



This caution is understandable due to insufficient understanding of the relationships of lowering the population of one animal without any corresponding lowering of the population of the other. The poisoning of other non-target wildlife is also of concern.

There is little documented evidence to suggest probable effects of cats and rats on native and introduced bird populations. From spats, it is evident that cats prey on rats. This may be due to the low numbers of birds who because of the cats and rats presence have been sufficiently reduced in number as to force the cats to make rats a substantial part of their diet. The extent to which cats may prey on birds may be related to the number of rats whose overall population appears to increase following seasons when vegetation seeding was high. The effect of rats eating seeds is also unknown.

However, it is argued that larger birds are more than a match for a cat. One respondent saw a cat attack and kill a kiwi; whether this bird was ill is not known. Unfortunately the cat had killed the kiwi before it was shot, and while this incident was reported to the authorities, it was disbelieved.

Many respondents commented that they shoot cats on sight even though this may mean them losing the chance at a deer. The minority would only shoot cats (or rats) if they were not actually hunting.

Respondents were asked to indicate the sighting of cats and rats. 20% of respondents saw neither cats or rats with 38% sighting both. 30% saw only cats and 12% sighted only rats. When the "both" category is divided, the incidence of sightings for cats and rats increases to 48.6% and 31.1% respectively over all respondents.

While it was not requested to list the actual number of sightings, the highest reported sighting was at Shelter Point where 15 cats and 25 rats were observed. In addition, two parties heard a wild dog and another party saw dog sign. The observations were reported to a ranger who acknowledged its presence.

Any control programme will have to be long term, and in view of the general lack of documented data, control efforts for cats and rats for the next few years will have to be limited to localised areas.

## 21. CAMP POLLUTION

For this question, respondents were asked to tick one or more of the options listed. A definite yes/no answer was not requested as it was felt that an indication of a preference was advantageous to a committed answer.

Obviously, the answers to this question are a great deal more complex than the question made out. Also, this survey only considered one of the two main recreational users of the Island, the hunters.



The options respondents were asked to consider were:-

1. To hire tarpaulins for a permanent framed site;
2. Carry home everything non-biodegradable;
3. Payment of fee for disposal hole/toilet etc;
4. Support annual cleanup and removal of all campsite occupation;
5. Status quo.

The general impression from replies is that most users are aware of the pollution problem but there appeared to be no one option with a clear majority over the others. The two options with the most support were to carry out everything non-biodegradable and payment of fee for disposal hole/toilet etc.

The option of carrying out everything non-biodegradable is easy to encourage, but what happens to the litter on the wharf at Oban (or the airport at Invercargill) is another question. The majority considered the theory that if an item can be carried in full, it can be carried out empty. While this is fine in theory, how is it going to be applied in practice?

The disadvantage of a disposal hole is that it attracts litter and vermin; rubbish can only be buried for so long at each site. Eventually over a period of time, the burial area becomes larger and larger.

Any form of litter removal should be fair on all users and not directed solely at hunters. It is acknowledged that some hunter campsites are a disgrace and likewise for trampers, but "picking" on one recreation and leaving the others is hardly a solution to the problem.

There is considerable criticism of the amount of litter left behind by all users, both the trampers and the hunters. One group seems to be laying the blame at the foot of the other. However, this may be partly explained by the fact of hunters tending to camp in relatively few locations, compared to trampers who on average probably spend only one night at each camp site.

The result, is for hunters to leave an accumulation of litter at relatively few locations whereas trampers tend to deposit less litter per site but litter over a greater number of camping sites. In the main, most users are quite tidy in their camping habits, but as in all of society, there is a minority whose habits tend to disgrace the majority.

The questions on campsite rubbish drew a great deal of constructive comment with 18% of respondents making direct reference to rubbish education. Listed below are some of their suggestions:-

- for the Forest Service to monitor campsites and impose fines;
- to include with the hunting permit a brief questionnaire on the condition of the campsite as left by previous occupants;
- to include with permit an information sheet outlining recommendations for camp litter disposal;
- to site helicopter bins at popular campsites;
- make the Island a no-glass area;
- provide can crushers at campsites and huts;
- a requirement for all parties to take a shovel so camp litter can be properly buried;
- to encourage all users to bring out all rubbish especially that rubbish which is non-biodegradable;
- to have a rubbish bin sited on the Oban wharf.



It appears that most parties would not object to a small rubbish fee being charged to assist some authority to effect general camp clean-up. This could develop into a far worse situation whereby users did not attempt to cleanup and keep campsites tidy. On those blocks where firewood is at a premium, encouragement be given to using fuel cookers.

While it is not intended to deny the pleasures of alcoholic beverages it appears (pers coms) that large quantities of alcohol are taken onto hunting blocks, particularly by those parties who travel by charter boat. All empties, cans or bottles, should be removed from the block at the end of the trip. Alternatively, hunting blocks be no-glass areas.

For a permanent framed site, only 49 respondents indicated their support. The Land Management Study (1978) also mentions this option. While it does have merit, it does not have disadvantages (the same as for huts) with the accumulation of litter and the general spreading of litter around campsites inspite of bins for rubbish disposal.

Respondents were asked to list what facilities hunting blocks required. 19.1% said more huts were needed, 23.3% said a permanent clean camp site would be advantageous. Only 3.8% expressed no comment with 53.8% considering nothing was required. It is quite clear the majority of hunters are quite happy with the limited facilities available. Hunters appear to be opposed to developing campsites to a higher standard and for the provision of additional amenities. Many expressed the wilderness feeling and the challenge of making camp in natural surroundings as part of the attraction of visiting the Island.

Only 5% of parties took no tents. 82.9% of parties used tents and 27.6% used huts for some part of their hunting trip. The Forest Service survey (1978) indicated that 81% of parties used tents, 1.9% less than in this survey.

Party size in this survey averaged 3.9 persons per party representing percentages in the groups as follows:-

Group Size of							
	1	2	3	4	5	6	7 + Persons
Percentage	3	20	21	31	9	10	2
							4%

As party size exceeded three persons, the numbers per party in this survey was approximately 50 to 60% greater than in the Forest Service survey which had a greater number of parties consisting of one (22%) and two (26%) persons per party. In this survey for the same party size of one and two persons, the percentage was 3% and 20.0% respectively.



## 22. SUMMARY

Over a twelve month period, 1280 hunters from all over New Zealand were estimated to have hunted on Stewart Island. They came to Stewart Island for one reason, to hunt the whitetail deer, the only herd of whitetail deer in the southern hemisphere and the only herd currently able to sustain recreational hunting.

The hunters were almost unanimous on two points. Firstly that deer numbers over much of the Island are now considerably lower than ever before, and secondly, this lower overall deer population is reflected in the great improvements of the vegetation.

Through their interest in hunting whitetail deer, hunters contribute to the economy of Stewart Island. However, hunter contribution to the Island's economy cannot ignore the importance for the deer population to be maintained at a level which ensures minimal damage to the vegetation yet at a level which ensures hunter success and satisfaction. As hunting is considered a viable use of Stewart Island, it may be necessary for the hunter to accept the lowest number of animals to give an acceptable hunting kill rate, and for the botanist to accept a slightly modified forest in a healthy regenerating state.

In coming to Stewart Island to hunt, hunters expend considerable amounts of money for transportation, purchases of consumer items and are accommodated at the hotel, motel and the camping ground. This survey indicated that 90% of hunting parties which made stop-overs at Oban made purchases and 43% used Island accommodation. 73% of hunting parties use boat charter from Oban to hunting blocks and return. In addition to direct revenue, hunters contribute indirectly to services based on the South Island which rely on the overall throughput of hunters and others for their viability. 95% of hunting parties engage South Island based transport services to reach Stewart Island.

Over the twelve months of the survey, 1280 hunters were estimated to have contributed in excess of \$55,371.00 to Stewart Island's economy. Since much of that sum is derived from direct revenue and since indirect income to the Island has not been added, the \$55,371.00 has to be regarded as conservative. The effect at 1981 prices of 1% change in the number of hunters visiting Stewart Island represents a change of \$553.

If hunter success and satisfaction decreased through too lower numbers of deer, the number of hunters visiting the Island will drop. This report concludes that hunting makes a valuable and significant contribution to the tourist economy of Stewart Island and could have considerable growth potential if a positive plan for recreational hunting was adopted.

To conclude this report, one respondent said, "Protect and retain at all costs the beauty and isolation of Stewart Island as it is the last place on earth where the ordinary hunter can do his own thing."



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