

Winchester

NEW ZEALAND LTD

*is proud to support Ducks Unlimited (NZ) Inc.
in their efforts to propagate and preserve
New Zealand's rare waterfowl.*



*Wellington Chapter members at Neil and Sylvia Hayes'
Wairarapa property 'Gretel Lagoons'.*



WINCHESTER®

MORE THAN A NAME. A LEGEND.

Distributed in New Zealand By: Winchester New Zealand



Flight

No. 4/91 • ISSUE 70 • DECEMBER 1991

NEW ZEALAND REGISTERED MAGAZINE

**DUCKS UNLIMITED NEW ZEALAND'S
WATERFOWL AND WETLAND JOURNAL**

\$4.50



In association with
Ducks Unlimited U.S.A, Canada and Mexico



DUCKS UNLIMITED NEW ZEALAND INC.,

— FOR WATERFOWL AND WETLANDS —

PO BOX 9795 AUCKLAND, NEW ZEALAND

BOARD OF DIRECTORS AND OFFICIALS

PATRON
Lady Diana Isaac, CHRISTCHURCH

PRESIDENT
J. C. Campbell, 'Rameslie', R.D. 1, MASTERTON.

VICE-PRESIDENT
D.D. Rice, LLB, P.O. Box 266, PAPAURA.

EXECUTIVE DIRECTOR
Dr G. S. Dumbell, 26B Rocklands Avenue, Balmoral, AUCKLAND. (09) 686-772

TREASURER
Mrs G. Hansen, R.D. 3, EKETAHUNA

SECRETARY
Ms M.J. McEntee, B.A., 26B Rocklands Ave, Balmoral, AUCKLAND

BOARD MEMBERS
A.K.M Elliott, 'Rawhiti' R.D.4 PAHIATUA.

K. Cook, 53 Waterloo Crescent, PALMERSTON NORTH
F. N. Hayes, FIED, LCG, 17 Wise Street, WAINUIOMATA
H. Egan, 9 Donlin Road, Pukerua Bay, WELLINGTON.
D. Johnston, Allen Road, R.D.1, REPOROA.
D. Smith, LLB, R.D. 5, PAPAURA.
A. Wilks, 73 Wood Street, GREYTOWN.
C. Hooson, P.O. Box 10289, WELLINGTON.

VETERINARY ADVISER:
J.O. Gill, B.V.Sc., ROTORUA.

LEGAL ADVISOR
Don McCulloch, LLB, UPPER HUTT.

SINCLAIR WETLANDS MANAGER
H.A. Sinclair MBE, R.D.1 OUTRAM

SCIENTIFIC ADVISER:
Dr J. Craig, AUCKLAND.

CORPORATE ADVISER:
P.B.C. Pirani, ANZIM, AUCKLAND.

HONORARY MEMBERS
K. Barnett, TOKAANU.
H. A. Sinclair, MBE, DUNEDIN.
K.G.W. Wilkinson, WELLINGTON.
Adrienne Longuet, WELLINGTON.
R.T. Adams, MBE, UPPER HUTT.
Lady Diana Isaac, CHRISTCHURCH.
A. Flexman, POKENO.
L. Piper, CHRISTCHURCH.
S. Loach, DUNEDIN.

LIFE MEMBERS
W. Barrett, AUSTRALIA.
N.C. Cameron, FEATHERSTON.
I.H. Pirani, KATIKATI.
Mrs D.G. Pirani, KATIKATI.
J.H.B. Ward, HUNTLY.
M.J. Bourke, KIMBOLTON.
Ava Zaubernen, AUCKLAND.
Isaac Wildlife Trust, CHRISTCHURCH.
F.S.S. Bailey, AUCKLAND.
N. Marsh, REPOROA.
Dr T. Reiger, U.S.A.
J. Campbell, MASTERTON.
Mrs C.L. Pirani, AUCKLAND.
Dr M.L. Hucks, TAUPO.

K. Lowry, AUSTRALIA.
M. White, DUNEDIN.
A.A. Gurney, FEATHERSTON.
Central North Island Wildlife Conservancy Council, ROTORUA.
M.R. Grace, HUNTERVILLE.
Mrs M.C. Davison, WYNDHAM.
Glenys Hansen, EKETAHUNA.
Gaylord Donnelly, U.S.A.
William D. Wright, U.S.A.
Mr & Mrs P.D. Nolan, U.S.A.
B. McDonald, OUTRAM.
C. Hooson, WELLINGTON.
L. McKinnon, PAHIATUA.
A. Fielding, PALMERSTON NORTH.
S. Hughes, DUNEDIN.
Peter McLeod, CHRISTCHURCH.
Hazard Campbell, U.S.A.
Dr Duncan Sinclair, CANADA.
Mrs G. Campbell, U.S.A.
E. Bidwill, TAUPO.
A. Terpstra, MURUPARA
Mrs D. Barnett, TOKAANU
L. Cleveland, DUNEDIN.
R. Meads, TURANGI.
M. Newcomb, AUCKLAND.
K. Butler, WAIPAWA.
H. Moulding, CANADA.
A. Nicholson, WELLINGTON.
T.G.L. Pearce, WAIRARAPA.
S.B.L. Pearce, WAIRARAPA.
B.M.L. Pearce, WAIRARAPA.
D. Johnston, REPOROA
N. Hayes, WAINUIOMATA.
L. Tapp, NORTHLAND.
M. Tapp, NORTHLAND.
C.M. Hansen, EKETAHUNA.
Miss O.D. Pearce, WAIRARAPA.
P. Roman, U.S.A.
C. Ewing, CARTERTON.
E. M. W. Pearce, WAIRARAPA.
M McEntee, AUCKLAND.
D Robinson, TE PUKE.
Equine Nursery, TE PUKE.
Otamaire Trust, HUNTERVILLE.
C. J. Worth, HAMILTON.
Mr B. A. Morrison, CANADA
J. O. A. Nielsen, MASTERTON
Mr M. Paku, MASTERTON
Mr & Mrs J. O. Hall, U.S.A.
Mr & Mrs C. Springer, ALASKA
Mr R. B. Trethewey, CANADA
Mr G. C. Henry, WELLINGTON
Mr H. Honegger, OTAKI
Mr R. Eberhardt, U.S.A.

Presidents Report

Dr Grant Dumbell recently attended the Wetland Link meeting last year at 'Chesapeake Bay.' For DU NZ to be represented at this unique International organisation representing education centres on wetland areas is a means for us to key into worldwide experience and expertise that should enable our Sinclair Wetlands educational centre to move forward in a very positive manner.

DU NZ will be very fortunate to have Ron Coley from DU Canada visit this month. Ron

is chief Engineer with Canada and his wealth of expertise will greatly assist us with the Kaituna Wetland at Te Puke and the Makerua swamps in Manawatu.

My report would not be complete without a special mention of thanks to Gary Girvan for the time and energy he has expended as part of the DU Board. Gary was largely responsible for setting up our print programme and has been a keen contributor at Chapter level and to the DU Board. We wish Gary and Abby well in the future and

know you will still be available with your expertise when required.

Finally I thank all members whether they be involved at Board level, Chapter level, or have assisted us over the past year to achieve the results that make your organisation as successful as it is.

Raana and I wish everyone the very best for the new year.

J C Campbell

PEARCE WETLANDS ACCESS

The Board are pleased to announce that access for members to the Pearce Wetlands has now been resolved. All enquiries for access permits for recreational activities including picnicking should be made in writing to (include a stamped addressed envelope) The Pearce Wetlands Access Coordinator, 73 Wood Street, Greytown.

Full details of the access permits will be sent by return mail to the member concerned.

The article attributed to Di Wilkes entitled "Birdie's, Eagles and Ducks" was actually written by David Yerex. The error is regretted. Editor



IN THIS ISSUE

Ducks Unlimited Canadian Style	4
Lead Shot	10
Advantages of Mark 6 Fenn	11
Project Reports	12
D.U. News	13

Cover Photo: Blue ducks at Melvin Pikes. Photo N. Hayes

MISSION STATEMENT

Ducks Unlimited (NZ) Incorporated is a private, charitable, non-profit conservation organisation dedicated to the preservation, restoration, creation and maintenance of wetland habitat in New Zealand, the propagation and conservation of the country's rare waterfowl, and the advocacy of wetlands as a valuable natural resource. This is achieved through six projects each with specific aims. These are: "Operation Pateke", the reduction of the threatened status of the New Zealand brown teal through the release of captive bred birds and wise habitat management; "Operation Gretel", to increase the number of grey teal in New Zealand through the provision of suitable nesting habitat; "Operation Whio", the conservation of blue duck through the release of captive bred birds to expand the species range; "Operation Branta", to establish the Canada goose in the North Island as a valuable recreational resource; "Operation Royal Swan", the conservation of Mute Swan through the establishment of a captive breeding population; and "Operation Wetlands", to preserve, create and manage wetland areas through direct funding, technical assistance and public education of wetland values. The scientific study of wetlands and waterfowl is also encouraged through direct funding.

The organisation was founded in May 1974 by a group of concerned conservationists and incorporated by them in June 1975 at Wellington, New Zealand. Membership, in four categories, is open to anyone who supports the organisation's objectives. Junior membership is \$11.00 per annum. Full membership is \$30 per annum. Trade membership is \$45 per annum. Sponsor membership is a minimum of \$60 per annum and Life membership is \$600.00. Membership carries a subscription to "Flight", the official quarterly publication of Ducks Unlimited which currently reaches 2000 members and friends concerned with waterfowl conservation. Letter, manuscripts and photographs should be addressed to the "Flight" Editor. To assure prompt delivery, members should send subscription renewals and changes of address to National Headquarters at PO Box 9795, Auckland. Any views expressed by contributors in "Flight" are their own and do not necessarily constitute those of Ducks Unlimited New Zealand Incorporated.

DON'T MISS YOUR COPY OF

ROD & RIFLE

M A G A Z I N E

NZ's Premier Sporting Publication.

- UPLAND GAME BIRD HUNTING • SEAFISHING
- BIG GAME HUNTING • TROUT ANGLING





Ducks Unlimited Canada's Winnipeg Head Office with the New Zealand flag flying.

DUCKS UNLIMITED CANADIAN STYLE

Grant Dumbell DU Executive Director

Feature Article

Between June 14 and July 11 this year I was fortunate enough to visit Ducks Unlimited Canada to see and learn just how they go about being one of the most effective wetland conservation organisations in the world. I made the trip as a result of an invitation extended to DU New Zealand by Duncan Sinclair, the Chairman of the Board of DU Canada, and for four weeks was totally engrossed in the organisation. Not only did I visit a wide range of field sites where projects have been completed, I also got to talk to a wide cross section of DU Canada staff and volunteers, visited their Winnipeg headquarters, and represented DU New Zealand at DU Canada's second national convention which was held this year in Halifax, Nova Scotia on Canada's Atlantic coast.

From the early part of New Zealand's winter I flew directly to Calgary to arrive on a sunny and warm late spring day. I was met at the airport by Jerry Brunen, an Area Manager from Hanna who told me that although I had arrived in Calgary I wouldn't see the place until I left again. We immediately left to drive northeast across the rolling prairies, headed for a small rural community at Castor.

Throughout the drive Jerry explained how Alberta and the rest of the prairie provinces had been in the grip of a drought for the past five years. While the snowfall on the Rockies, which we could clearly see framing the eastern horizon, had meant that river levels were pretty normal, the rain had not fallen on the ground to fill the wetland basins and provide the necessary breeding habitat.

As a result, many prairie waterfowl, such as the pintail, had experienced massive overflights in their migration and had gone as far north as the Northwest Territories and

Alaska looking for suitable water. What Jerry couldn't know was that I had bought the rain with me. It started raining two days later and Alberta went on to record one of their wettest summers in years.

In Castor I was treated to a true DU Canada fundraising banquet, and for a moment I thought I was in Masterton, or Palmerston North at one of our own chapter dinners. The similarities amazed me and showed that Canadians and Kiwis enjoy a night out in pretty much the same style. Also at the dinner was Al Cromb who visited New Zealand earlier in the year, and Brian Wilkie who Jim Campbell had met on his trip to Canada three years ago. I also met Lloyd Berry, a DU Canada director from Alberta who was eventually convinced that not all Kiwis had bloodshot eyes.

The evening's entertainment included a novel indoor duck race using a flooded shuffle board and a waterpump to race plastic ducks on the current. The whole event was put



together by a local committee who has the help of a Contributor Services Representative. In this capacity, Doug Russell is the touchstone where volunteer meets staff and it is his job to help the local committee get everything in place in order to be able to have a successful event. In this instance everything had come together, as a very successful evening was had by all, including the man who bought the DU New Zealand shoveler print.

From Castor we moved on to Stettler on the edge of the aspen parklands habitat where we met Dave Howerter. This habitat is where the open grasslands begin to give way to groves of trees interwoven with many small wetlands. Dave and his team of researchers were working on an extremely large radio tracking study as part of the North America Waterfowl Management Plan. This study was a big trial to see if it was possible to capture, radiotag and track around 100 nesting mallards at once, and then be able to capture, radiotag and track their ducklings.

The short answer was yes, although the logistical considerations were more like a nightmare as some females had attempted to

breed up to five times. The study had to perfect ways of capturing and handling such a large number of radiotags, and the best method of attaching the radiotags, and the best ways of handling the mountain of data which quickly accumulated, all under field conditions in the space of a trailer home. If successful, the trial will be repeated on a range of species and at a range of sites across the prairies to try and find out how habitat differences in different sites affect different species. This will add an enormous amount of information to the management of the prairies to help conserve wildlife values across Canada, the North American Duck Factory.

The radio tracking study is just one part of Prairie Care, which is one part of the North American Waterfowl Management Plan. Under Prairie Care, DU Canada is undergoing a fundamental shift in approach to wetland conservation. Whereas the first fifty years of their history was devoted to habitat quantity, the emphasis is now shifting towards habitat quality, hardly surprising when you realise that DU Canada now has over five million wetland acres under management.

Prairie Care is tightly linked to the

Wetland enhancement at 'Broadlands East' British Columbia.

landowners and farmers of the prairies who are being encouraged to manage their land in a way which is complimentary to wildlife, including the retirement of marginal land, and the sustainable management of productive land. The simple act of agreeing to withhold a hay cut until after the 15 July will mean that waterfowl nesting in the paddock will have a greater chance of hatching their brood. Likewise, leaving a field fallow with the stubble intact rather than ploughing it in, will provide extra nesting habitat adjacent to a small wetland. These simple acts can make a huge difference to the waterfowl which are sharing the land with the farmer's hay and grain crops.

The highlight of my visit to Stettler was visiting a predator exclusion plot where predators had been fenced out of a trial plot using a large electrified fence. The success of hens nesting inside and outside the fence was being compared to monitor the impacts of nest predators, and to my delight all the

electric fence equipment was emblazoned with 'Gallagher' and 'Made in Hamilton, New Zealand.'

From Stettler we moved south again to Strathmore and linked up with George Freeman and Tom Sadler. George is nicknamed Mr DU, and his number plate agrees. He joined DU Canada in 1948 as a surveyor, and is still actively involved in 1991. Tom is a biologist and was able to point out many of the wetland species unknown to me; including a peregrine falcon. Strathmore is in an irrigation district and, as a result, the area has a totally different look. Large trees planted for shelter are one of the first things you notice. The irrigation authorities are closely linked to the development of the railways, and are important partners in DU's wetland conservation work on the prairies as both organisations are fundamentally interested in water storage, albeit for different reasons. The most obvious sign of irrigation was the huge self driven rotary irrigators each with an arm a half mile long rotating on a centre pivot. These irrigators create their own rain storm and cover 640 acres in each 24 hours. Some even have attachments to irrigate into the square corners of the paddocks as they move past.

Tom and George showed me a wide range of water control structures and many clever project enhancements that can be installed after a project has been flooded. Some of these work in unexpected ways, such as the hawk nesting platforms taken over by geese, and the straw nesting bales burrowed into by muskrats. The water control structures are all deceptively simple and can often be prefabricated before being installed. However, built in to all of them is the important ability to fluctuate and actively manage water levels in the impoundment behind them. This is something which is not yet used widely in New Zealand yet gives the wetland manager so much more flexibility in that vegetation can often be controlled using manipulated water levels rather than by more costly methods.

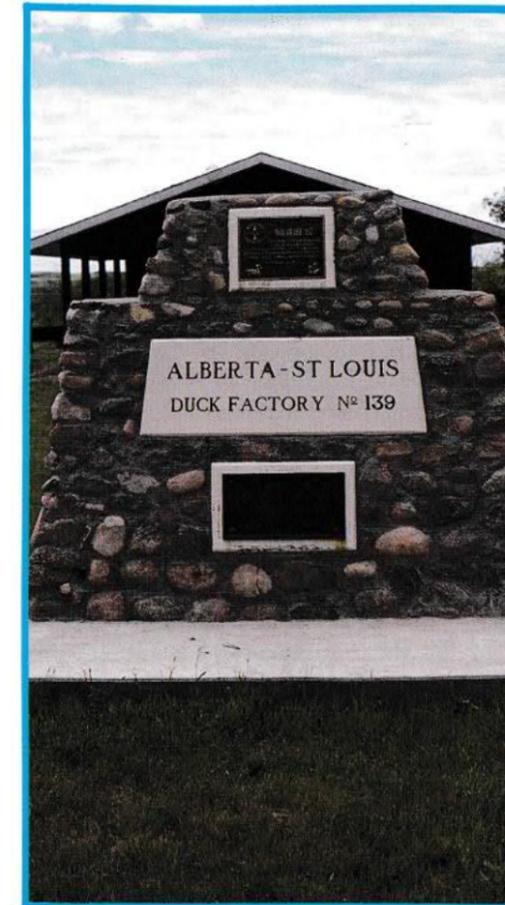
Jerry's original comments were correct in that the next time I saw Calgary was when I arrived at the airport on my way to Winnipeg. After a delayed flight bought on by nothing more serious than an aircraft loo that wouldn't flush, I arrived in Winnipeg on a very hot Monday afternoon. Steven Tinning collected me from the airport and we spent the evening barbecuing steaks on his deck at home, a strange feeling in the middle of June.

My four days in Winnipeg gave me a thumb nail sketch of DU Canada's central nervous system. It is from this office that all the purchasing of auction items is arranged, along with their dispatch to the hundreds of committees around Canada, including us here in New Zealand. Similarly, it is home to the public relations staff who produce the 'Conservator' magazine, and the biological and engineering teams which oversee and control all of DU Canada's operations right across the country.

I spent most of my time in Winnipeg learning how the management systems were structured to look after their \$14 million income from Canada, along with the \$40 million or so that comes from the States. While this is an enormous amount of money in New Zealand terms, I was left with the clear impression that every dollar works extremely hard for the ducks, and there is no waste. As a result, DU in both Canada and the United States annually spends close to 80c in every dollar out in the field where their contributors want it spent.

Also during my four days in Winnipeg, DU Canada came in for some stinging criticism about their plans to build their new headquarters building at Oak Hammock Marsh, in conjunction with the provincial conservation authority. It seemed absolutely unbelievable to me, as a biologist, that the people who stirred up the controversy could call themselves conservationists. The 4,500 acre Oak Hammock Marsh would not be there today if DU hadn't restored it. DU has also programmed heavy construction to stop during the waterfowl migration seasons, and although the site is an international wetland under the Ramsar convention, an independent environmental audit could not find anything wrong with the concept. Once built, the facility will not only provide headquarters for DU Canada, but also a world class interpretive centre where people of all ages can learn about the values of wetlands. This educational side of the project will no doubt be the greatest positive impact that could be hoped for.

Throughout my time in Winnipeg the preparation for the convention had reached fever pitch as I retreated to British Columbia for a few days R&R and to visit DU New Zealand's good friend Norman Marsh. Norman spends time in the Cariboo where there is a bigger and wilder version of the Broadlands Wildfowl Trust here in New Zealand. While I was there Norman decided that 'Broadlands East' may be a good name.



A D. U. Canada project cairn in Alberta.

From Williams Lake I took the overnight flight to Halifax and discovered why it was called the Redeye. Canada is so large east to west that it takes seven hours to fly to the Maritimes, the group of small provinces on Canada's Atlantic coast. Combined with a four hour time change it becomes an eleven hour trip. Halifax was the site of DU Canada's second national convention, and was described by Winston Churchill as "the wharf of North America." It was in the city's safe harbour that the liberty ships were formed into convoys for their often one way trip to Britain during the Second World War. It was also the site of the largest manmade explosion before the atom bomb when a ship carrying munitions was rammed and exploded during the First World War. This event flattened half the city, and was the only time when the city's fort defended the town by protecting the other half from the blast.

While the convention officially started on Thursday June 27, the Wednesday evening was given over to a 'Welcome To Halifax

Reception." This was a very interesting evening where the supply of seafood was inexhaustible, as was the range of people to meet. In three hours I caught up with nearly everybody who has visited us here in New Zealand from North America over the past three years. There was also a photographer who was taking pictures of everyone and these were used the next morning in the slide presentation as part of the convention opening ceremony.

Each of the three convention days was split into morning business sessions, afternoon recreational activities, and evening parties. Food and entertainment were never far away and Nova Scotia must surely be the seafood capital of the world. I spent a total of nine days in the Maritimes, and after leaving I realised I had eaten nothing but seafood in that time. Little wonder that the visit to 'Pizza Hut' made me view pizzas in a new light.

The convention's first business sessions included speeches from many local and provincial dignitaries followed by reports from DU Canada, DU Inc, DU Mexico and

DU New Zealand. Some of these were sound and light spectacles and utilised a bank of 13 computer controlled projectors. My slides used one projector and I have never seen them shown on such a huge screen.

A personal highlight of addressing the convention was the fascination that many delegates showed for New Zealand. They often found it hard to believe that Ducks Unlimited existed in a country so far away, and that we would bother coming to their convention which was closer to the North Pole than the South Pole. A further highlight was the chance to meet some of the DU Inc staff, including Matthew Connelly, whom I had only corresponded with. I also took the chance to meet Eric Gustafson from Ducks Unlimited Mexico as they are the one part of the international DU family that we have not yet had much contact with.

While the scale of our operation here in New Zealand is so much smaller than in Canada, America, or Mexico, it was interesting to note that we all faced similar types of problems. Hopefully, similar types of solutions will also be able to be used, so

Ducks Unlimited New Zealand can benefit by not having to reinvent the wheel. In this respect the 54 year history and experience of DU in North America is an extremely valuable resource for us here in New Zealand.

The lobster party that followed the first day's business was something that had to be seen to be believed. Everyone was dressed in a sou-wester and supplied with at least two lobsters each. While these were being devoured we were entertained by the funniest comedian I have ever heard who was fast becoming a Canadian superstar. His Newfoundland brand of humour would not be out of place here in New Zealand, or in Australia, and like the cross Tasman jokes we often hear, he delighted in poking fun south of the border.

The second day's business revolved around DU Canada, their volunteers, and the fundraising techniques used. This included speakers from Environment Canada and from Dow Chemical both of whom are important partners in DU Canada's work. A series of workshops was also held where ideas were hatched, aired, and swapped so that everybody leaving the convention could take home something new for their next fundraising activity. This business session directly complemented the third day's sessions which were given over to DU Canada's new strategic planning thrust. Workshops were held on the subjects of operations, education, biological investigation, public relations, finance and fundraising and was an opportunity for the delegates to have input into the program that DU was involved with.

Again, it reinforced the vital links between staff and volunteers which are a major part of the success of DU.

Without doubt, the most enjoyable part of the convention was the 'DU Down Under' reunion where everybody from DU in North America who has visited DU New Zealand got together at the invitation of Stew and Pat Morrison. This included past and present Chairmen, Presidents, Directors, staff and supporters of both DU Inc and DU Canada from as far south as Utah and Arkansas, as far west as British Columbia and Washington, and as far north as Alaska. It included people instrumental in setting up DU New Zealand in the early 1970's, and those that are currently involved in setting up DU Australia in the 90's, and some of the stories told would make a wonderful book about people committed to conserving the waterfowl and wetland heritage of a continent. The

singleness of purpose which has made DU famous throughout North America could not have been illustrated in a more concise manner.

After the convention, I spent a few days with Al Glover, an engineer from the Amherst office in northern Nova Scotia. From here we visited a range of projects in the east which served as a clear contrast to what I had seen in Alberta. For a start, the water volumes that the projects have to deal with are so much greater, and are more like New Zealand conditions. The projects must also be built to accommodate the many different fish runs that occur from the sea to the rivers and this had made DU Canada the leading experts on the construction of fishways. Many DU projects here are also in salt marshes and must be built to withstand the effects of tides. John Wile showed me the Bay of Fundy tidal range of over 40 feet, so on every tidal cycle the projects come under the onslaught of fast flowing, heavily sediment laden salt water which poses an additional range of engineering constraints not experienced elsewhere. As a result, the projects are generally a lot more expensive to build, but at least they do not have the prairie problems of four foot thick ice which is blown around by blizzard force winds.

Al also showed me the famous 'cookie cutter' which is a DU invention for opening up vegetation infested marshes. This flatbottomed boat has two rotating cutters like extractor fans mounted on it and can drive itself through less than three feet of water cutting a channel as it goes. This opening of the large tight vegetation stands which develop in dying marshes quickly rejuvenates them and allows all manner of wetland wildlife to get in and inhabit the area. This also includes fish, and we spent an

enjoyable few hours doing our best to catch one or two of the better eating ones.

Prince Edward Island is Canada's smallest province and the home of 'Anne of Green Gables.' It lies on the southern side of the Gulf of St Lawrence, and on our visit we were lucky enough to see flights of Scoters migrating northward. These rather strange sea ducks nest on the arctic coast of Canada and move up and down the Atlantic coast during their migration. PEI also had tens of thousands of Canada Geese stop off on their migration making it one of the most important goose areas in the east of Canada.

My last stop before the trek home was with Duncan and Margaret Sinclair in Aylmer, Ontario, near the shores of Lake Ejre. Just down the street is DU Canada Director Herb, and Jeanette Kebell who have also visited us in New Zealand. While Duncan is a GP, Herb is a funeral director so between them they are able to take care of the residents of Aylmer throughout their lives. Duncan was involved with the very first DU fundraising function held in Canada and has been closely associated with the development of the organisation over that time. As a result, he was able to give us a range of pointers which will greatly assist both our fundraising and operations here in New Zealand. Between them they were also able to give me a range of pointers on how to catch some very large salmon during a weekend of fishing on the Lake.

I arrived back from Canada just in time for our own annual general meeting, and while it was a more modest occasion than I experienced in Halifax it nevertheless served to convince me that DU New Zealand is successfully adapting the successful DU formula to New Zealand and with the commitment of our own volunteers we can

be proud of what DUNZ has achieved in its short 17 year history. More importantly though, it also convinced me that we must look towards the future and ensure that our organisation is able to develop into the most effective waterfowl and wetland conservation organisation in the country as only then will we be able to fully play our part in helping to repair over a century of destruction of wetlands in New Zealand. While we must approach this mission with a serious and professional attitude, we must also be able to have a little fun along the way. ■

GIMPEX GRAIN DISPENSERS

The first grain FEEDER only feeding out when activated by YOUR birds!

NO LOSS OF GRAIN TO RATS AND SPARROWS
LOW COST FEEDING IN ALL CONDITIONS YEAR ROUND
GREAT SUCCESS ON POULTRY AND GAME FARMS IN NEW ZEALAND
WILL ADAPT TO ANY BIRD NUMBERS WITHOUT ALTERATION

GIMPEX GRAIN DISPENSERS are suitable for Chicks from one week on and older, Ducks, Pheasants and Partridge. GIMPEX "ready to use" FEEDERS have large 20 litre rainproof containers with strong handles. GIMPEX DISPENSERS are for self-mounting onto other systems. GIMPEX COMPLETE FEEDER \$41.30 incl. GST add \$6 Postage GIMPEX DISPENSER "ONLY" \$27.00 incl. GST add \$4 Postage For free information please write to: GIMPEX NZ, P.O. BOX 2202, ROTORUA.

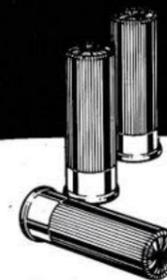
LET
GIMPEX
HELP
YOU TO
THE LIMIT



RELOADERS SUPPLIES LTD

NO. 1 IN N.Z. FOR ALL YOUR SPORTING SUPPLIES

WRITE TO PO BOX 13-010 ONEHUNGA OR TEL (09) 665-407 FOR FREE PRICE LIST



LEAD SHOT IN GIZZARDS OF NZ MALLARDS

By J W A Dyer BSc

(Auckland/Waikato Fish & Game Council, R D 9, Hamilton)

In the 1990 waterfowl hunting season hunters in the Auckland/Waikato Fish & Game Council region were asked to collect and send in mallard (*Anas platyrhynchos*) gizzards to Fish & Game Council staff. These were checked for ingested lead shot pellet presence according to an 'improved' x-ray procedure described by Montalbano & Hines 1978.

It is probable that a number of grey duck (*Anas superciliosa*) and hybrid gizzards were also present and were included.

Of the 467 gizzards examined 22 birds (4.7%) contained a total of 57 pellets. Their incidence is described in Table 1.

If we split the Auckland/Waikato sample into areas we find that 376 gizzards from a variety of areas had a 2.7% incidence of shot present (10 gizzards with shot). However the remaining 91 gizzards all collected from another single area contained 13.9% (12 gizzards with shot). If we further compare this so-called 'hot spot' area with 'other areas' we find all but one of the gizzards containing multiple shot came from the 'hot spot' (see Table 2).

DISCUSSION

Lead poisoning of waterfowl by spent lead shotgun pellets has been demonstrated in 15 countries and of 13 studies involving mallards (in USA, CAN, UK, SWITZ, FRA, FIN, DEN, SWE) the mean percentage of pellets in gizzards was 11.4 with a range of 4.2- 18.0 (Thomas 1982). Our result of 4.7 therefore represents a relatively low incidence. It should be noted however that the previous x-ray technique to that of Montalbano & Hines (1978) significantly underestimated pellet abundance. Thus the gulf between our results and pre 1978 investigations (e.g. Bellrose 1959) would be wider than the face value of the figures obtained suggest.

Alternatives to toxic lead shot have been extensively investigated with only soft iron



Table 1 Incidence of pellet numbers found.

# of pellets	Incidence in birds
0	445
1	14
2	2
3	0
4	0
5	1
6	3
7	1
8	0
9	1

Table 2 Frequency of pellets numbers found in "hot spot" and "other areas" gizzards containing shot.

# pellets present	Frequency	
	"Hot spot"	"Other areas"
1	5	9
2	2	
3		
4		
5	1	
6	2	1
7	1	
8		
9	1	

('steel') shot proving acceptable. However it is ballistically inferior because of its lower density; 7.86 specific gravity against lead; 11.34. This is reflected in its down range energy retention and this lack of energy produces more wounding of birds at longer

ranges (Madson & Kozicky 1973). US workers therefore established a 5% benchmark above which lead poisoning deaths would have to rise to offset the extra wounding losses caused by steel shot. The 5.0% triggering criteria was referred to as the

'hotspot approach' and steel shot was initially only made mandatory in these 'hot spots.' (US Fish & Wildlife 1986).

It was subsequently found that endangered bald eagles (*Haliaeetus leucocephalus*) were dying as a result of eating spent shot in the tissues of dead ducks. A series of 'bald eagle criterias' were proposed to make steel shot mandatory where threat to bald eagles was greatest. However, the final approach chosen was to ban lead shot throughout the USA, the approach that gave eagles maximum protection throughout their range (US Fish & Wildlife 1986).

It is important to realise that the general level of lead poisoning demonstrated in this NZ study would not exceed the US Fish & Wildlife Service 5.0% triggering criteria.

The endangered bald eagles scenario does not exist in NZ. So from this initial study the projected net effect of a general mandatory change to steel shot would be to produce more waterfowl wounded than it would reduce deaths by lead poisoning.

This study's sample size is relatively small and should be considered broadly indicative rather than definitive. However it does urge more caution than has currently been exercised in the rush to universally adopt mandatory steel shot in NZ's quite different circumstances in the absence of any real local study.

The additional contention that lead shot 'pollutes' waterways was dismissed by a recent Australian study (Lund et.al.1991).

REFERENCES

- Bellrose F.C. 1959 Lead poisoning as a mortality factor in waterfowl populations III. Nat. Hist. Sur. Bulletin 27 (3) : 235-288
- Lund M., Davis J., and F. Murray The fate of lead from duck shooting and road run-off in three Western Australian wetlands. Aust J. Mar. Freshwater Res. 42, 139-49
- Madson J., and E. Kozicky (Sept 1973) A Steel Trap for Duckhunters. Sports Afield
- Montalbano F., and T.C. Hines, 1978 An improved x-ray technique ingestion of lead by waterfowl Proc. Annual Conf S.E. Assoc. Fish & Wildlife Agencies. 32 : 364-368
- Thomas G.J. (1982) In D.A. Scott (ed) managing wetlands and their birds. International Waterfowl Research Bureau, Slimbridge, England.
- US Fish & Wildlife Service, Dept of the Interior, 1986 Final Supplemental Environmental Impact Statement: Use of lead shot for hunting migratory birds in the United States Washington DC.



THE ADVANTAGES OF THE NEW MARK 6 FENN

JOHN DYER

The Mark 6 Fenn has an extra inch of jaw length and a stronger spring. Its principal target is rabbits and it is intended to be set at the burrow entrance. It therefore lends itself particularly to the upper size range of NZ predators such as ferrets. In contrast the Mark 4 is targeted for rats so suits weasels and stoats of a similar size. These are generalities and obviously a good deal of overlap occurs.

While the Mark 4 should be set in tunnels 6" wide x 5" high (both inside dimensions) the Mark 6 requires a larger tunnel at 7" wide x 6.5 high (again inside). Length should be about 24". Two stout stakes should be driven into the ground at the entrance leaving enough room for predators to pass but keeping out dogs, blackbirds etc.

The photo also shows a 'Steinhaufen.' This continental idea is simply to create a small path leading off the one you normally use to feed your birds for instance. Place a tunnel across it and cover with stones brought to the area if necessary. Arrange a few 'Vee' shaped lead-ins to guide in the prey. Drag a bait along the regular path and in towards the tunnel, leaving it behind the set traps. These can then be visually checked each day with ease as you visit your waterfowl and won't need rebaiting for seven days or so. Tunnels that pass from one side of a wall or hedge to another are also productive as are tunnels in old overgrown ditches which carry water only irregularly.

Project Reports

OPERATION PATEKE

Successful breeders from the 1990-91 breeding season for brown teal were as follows;

HILLDALE ZOO NEW ZEALAND	25
KATIKATI BIRD GARDENS	20
OTOROHANGA ZOOLOGICAL GARDENS	20
NEIL HAYES, Wainuiomata	12
CHARLIE MONEY, Dargaville	11
GLENYS HANSEN, Eketahuna	11
ANN GRAEME, Tauranga	8
RON MUNRO, Invercargill	8
MARY ATKINSON, Hanmer Springs	6
WELLINGTON ZOO	6
MURRAY POWELL, Hamilton	4
CLAYTON PUTT, Hamilton	2
QUEENSTOWN NATURE PARK	2
ROY DENCH, Hamilton	2
JIM GLOVER, Wellington	1
TOTAL	138

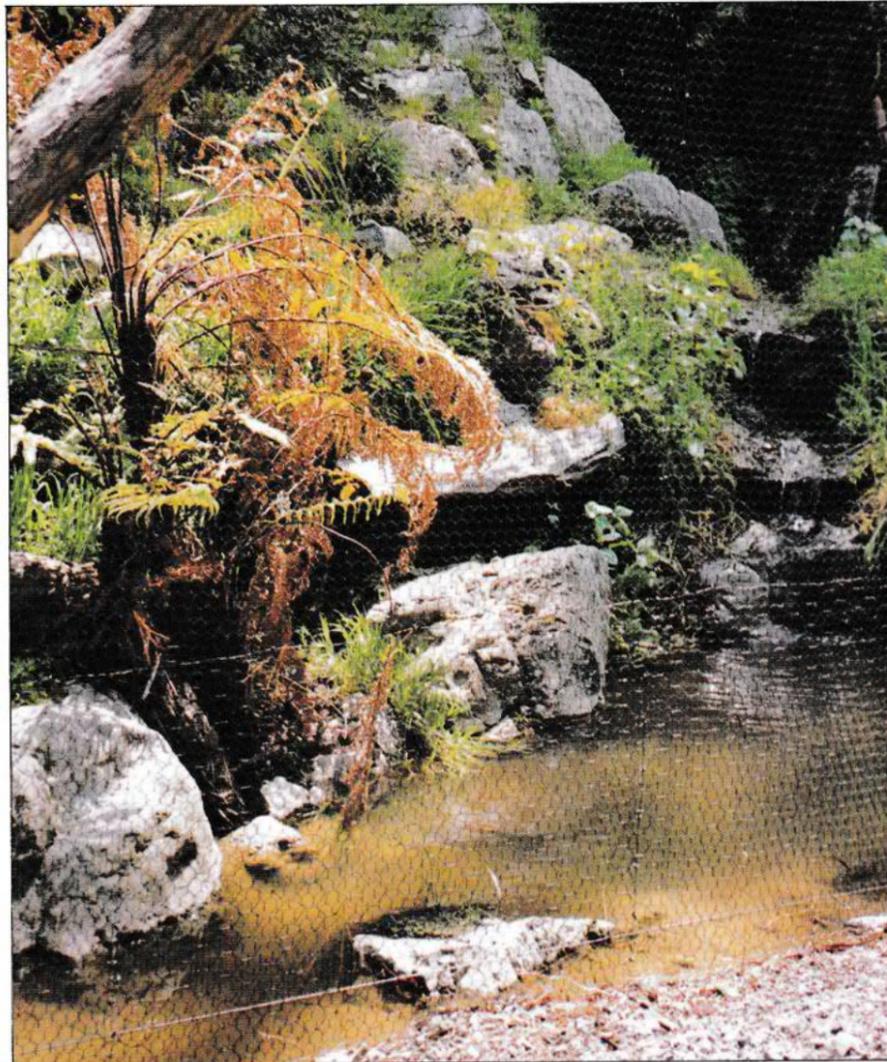
An impressive result, which again shows the value that wildlife parks and zoos can have in the recovery of rare species. Our ladies also played a vital role too!! Our congratulations and thanks to all involved in the programme.

Over 70 of the 138 birds were released in Northland and the remaining birds available, plus birds from the 1991-92 season will be released in the new year.

Many problems still have to be overcome in Northland, particularly with predators, if we are to make any real progress in saving the brown teal from extinction.

OPERATION WHIO

As a result of nine ducks being reared during the 1990-91 breeding season, we've been able to establish five new pairs of blue



New Blue Duck aviary at Staglands north of Upper Hutt.

duck for the captive breeding season - these have gone to Mary Atkinson, Dave Johnson, Russell Langdon at Ashburton, Melvin Pike and Staglands Wildlife Park at Upper Hutt.

Staglands Director, John Semester, has built a superb aviary and the placement of blue ducks in the aviary resulted in a large slice of publicity in the DOMINION newspaper. ■

DON'T MISS YOUR COPY OF ROD & RIFLE

M A G A Z I N E

NZ's Premier Sporting Publication.

- UPLAND GAME BIRD HUNTING • SEAFISHING
- BIG GAME HUNTING • TROUT ANGLING



D.U. News

AUCKLAND CLAY TARGET SHOOT

On November 17th, the Auckland Chapter held its inaugural clay target shoot at committee member David Smith's property in Clevedon. With superb weather on the chapter's side, the event became a thoroughly enjoyable day for all who attended. The course consisted of six stations with fifty targets and offered all shooters a challenging round that was testing but fair. Congratulations to the following winners. HOA - Gary Peters .. 31, A Grade - 1st Gary Peters, 2nd Scott Stonex, 3rd Stephen Hanford. B Grade - 1st Graham Butler, C Grade - 1st Lance Dickey, 2nd A Salmon, 3rd David Smith. Unregistered - 1st Gifford Quarrie, 2nd Paul Boeyan, 3rd Warren Hill. The chapter committee wishes to thank Hooson Industries and Halcyon Publishing for their substantial sponsorship, as well as Reloaders Supplies for their continued support of the chapter events.

DUNZ NATIONAL RAFFLE

The 1991 DU National Raffle concluded in mid October. This years winners were: - 1st Mrs H Buys Eketahuna, 2nd Mr G Allerby Kaeo, 3rd Mrs R Doran Paeroa, 4th Thomas Bialas Rotorua, 5th Dave Johnston Reporoa, and 6th Mrs R Carrick Wellington. The Board wishes to thank all members who participated in this major annual fundraising appeal. Response was particularly good this year, reflecting the great range of prizes in this year's raffle. Special thanks to this year's donors Broadlands Wildfowl Trust, Mark Newcomb of Neville Newcomb Reprographics, and Phil Scully of Sunley Chemist Wellington.

DU AUSTRALIA

DUNZ is pleased to announce the formation of DU Australia. The organisation is to be centred in South Australia. DUNZ looks forward to close ties with DU Australia, and Directors are already setting aside time to attend the official opening of DU Australia in April 1992.

KAITUNA WETLAND

The Department of Conservation and the Bay of Plenty Regional Council have recently completed a water options paper looking at the issue of water supply to the Kaituna Reserve to help restore this regionally and nationally important wetland. The three options include:- a) opening the reserve to

the Kaituna River by the removal and resiting of a stop bank, b) the installation of additional culvert structures to admit water to the reserve on the tidal cycle, and c) the installation of a pump to pump water into the reserve rather than into the river. A further option is a combination of culverts and pumps to return water to the wetland during the breeding season, while letting the water draw down during the summer.

As part of the Department's ongoing consultation about the future of the Kaituna, DUNZ has been asked to comment on these options. This wetland restoration project is potentially one of the most significant on the east coast of the North Island and DUNZ fully supports the moves to restore this wetland.

MAKERUA SWAMP

DU Manawatu Chapter has received approval from the Board to begin a wetland project in the Makerua Swamp near Palmerston North. This large flax swamp is owned by DoC but has suffered from a lack of water over past years. The chapter intends to use a combination of digging and stopbanking to create the areas of open water so badly needed in this wetland. The earthworks will be complemented with a planting programme, and it is hoped that work will begin later in the summer.

WETLAND LINK INTERNATIONAL

The second meeting of Wetland Link International was held in early October at The Horsehead Wetland Centre on the famous Chesapeake Bay in Maryland U.S.A. Grant Dumbell attended the meeting which finalised the WLI Chapter and laid out the first tri-annual work programme. Centres from Australia, Britain, Hong Kong, Italy, Trinidad, U.S.A and N.Z. were represented. Grant's attendance at the meeting was fully supported by the Waterfowl and Wetland Trust at Slimbridge. The Board of Directors are most grateful for this continuing support for our involvement in Wetland Link International.

WESTPAC BROWN TEAL APPEAL

As announced in October, DUNZ received support from Westpac Banking Corporation, to run a national appeal for funds for Operation Pateke. This appeal ran for two weeks, where members of the public could make donations to the appeal at any Westpac Branch. Westpac support was arranged by Grant Dumbell and

Howard Egan as a result of major media coverage of the fate of some of our released birds in Northland. While the appeal did not raise a tremendous amount of money, it did generate a wide range of publicity and interest throughout the country. As a result of this publicity, Marriott-AIAL Ltd, placed a collection box in the Auckland International Airport which generated further funds for the project. DUNZ's Board of Directors thanks Westpac and Marriott-AIAL for their support.

NEW HQ'S BEGUN

Construction has now begun on DU Canada's new headquarters building at Oak Hammock Marsh near Winnipeg in Canada. Similarly DU Inc have also begun building their new HQ's in Memphis Tennessee, and hope to move in, in August 1992.

DU CANADA VISITORS

DUNZ hosted Ron Coley, DU Canada's Chief Engineer in early December. Ron who has been working with the newly formed DU Australia, and also in Botswana on an IUCN project, stopped off in NZ on his way home to inspect the Kaituna and Makerua Wetlands.

Jim and Raana Campbell are also hosting Chris Morrison from DU Canada. Chris is spending the summer in NZ and will be visiting most of DUNZ's projects around the country. We hope that Chris enjoys his stay, which is surely better than spending Christmas at -30 C below in Canada.

MIMIWHANGATA UPDATE

Field work is almost complete at Mimiwhangata following the release of twelve radio tagged female brown teal in June. Of the twelve, nine were killed by predators, two have left the study area and only one made a successful breeding attempt. She laid six eggs and hatched four, however she did not successfully raise any young. Although it is never pleasant receiving bad news, a positive side to this research is that we now have a much clearer understanding of the problems faced by birds following their release into the wild. The information gained from the research has aided the formulation of the Brown Teal Recovery Plan which is now in its final stages of preparation.

MUTE SWANS SITTING

The Mute Swan breeding appears to be going well this year, with birds again sitting

oneggs. Jim Campbell's pair have just hatched six cygnets for the first time and we are looking forward to a very successful year for Operation Royal Swan.

EL NINO

As widely reported, this spring and summer are being affected by the El Nino weather pattern. The last time this event occurred, wild blue duck populations did not have a very successful breeding season. DUNZ hopes this will not repeat itself this year as a good breeding season would greatly assist the blue duck recovery programme.

WELLINGTON CHAPTER FIELD TRIP

On Sunday 17 November twenty plus Wellington Chapter members met at the gum tree in Greytown for a day in the Wairarapa.

First point of call was for morning tea at GRETEL LAGOONS - the property of Neil and Sylvia Hayes - situated midway between Greytown and Carterton. GRETEL LAGOONS has been owned by the Hayes family for two years and consists, for the most part, of three hectares of remnant native bush and four hectares of an impressive nine hectare oxbow lagoon. The native bush contains twelve species of native trees, including over 200 mature kahikatea and nearly 100 mature totara. Since taking over the property Neil and Sylvia have planted 150 kahikatea, 300 totara and 60 cabbage trees. The property will shortly be protected by a QEII National Trust Open Space Covenant.

GRETEL LAGOONS is appropriately named as the main lagoon, plus a large lagoon recently completed at the end of the main lagoon, supports large numbers of grey teal and the pond has a willow infested area where grey teal are breeding. The lagoons also support shoveler and mallard, and in fact nearly forty different bird species have been identified to date - these include NZ dabchick, native pigeon and NZ falcon. Neil and Sylvia guided members around the whole lagoon and bush areas and members were able to view possum control and predator control measures.

From GRETEL LAGOONS the party travelled a short distance to inspect the wetlands created at the Carterton Golf Club and the fine waterfowl collection assembled there. (See last FLIGHT). Melvin Pike, one of the prime instigators of the golf course



Left to right - 1st Place Prize Winners. B. Gwynn - Gun Winner. Peter Sully - A Grade. J. Harrison - 1991 Champion. Phil Scully - B Grade. B. McIntyre - C Grade. K. MacDonald - DU Member.

project, guided the party around and discussed further development plans. Plans which will make the Carterton course an outstanding example to every course in the country.

From the golf course the party journeyed another short distance to CANADA FLATS - the property of DU Director Howard Egan. Howard has developed a quite superb wildlife habitat on his twelve hectare property and thanks to financial assistance from the Wellington Fish & Game Council, advice from Ducks Unlimited, technical support from DU member and water control expert Melvin Pike, and excellent earth moving work from local contractor Gary Smith, Howard has created three wetlands totalling three hectares.

Again well over thirty species of birds have been recorded at Canada Flats and members were able to view many of these first hand.

A tour of Canada Flats was followed by a barbecue, on a typically fine Wairarapa day.

WINCHESTER DUCKS UNLIMITED NATIONAL SPORTING CLAY CHAMPIONSHIP

The second of our 'new' format championships was hosted by Wairarapa Chapter at the Eketahuna Gun Club grounds on 3 November. Support from our members was fantastic with 66 shooters coming from as far away as Auckland to attend this event.

Major sponsors Winchester (long time DU supporters) products was included in the entry and had to be used for the event.

The weather must have scared off a few

but although brisk with the odd shower the southerly front eased all day. Wellington shooter John Harrison mastered the testing targets thrown by the club to finish the event with a score of 83 ex 100 to take the 1991 Championship, closely pursued by Peter Sully on 81. The results are detailed below.

An impressive array of product prizes were awarded to the first five places in each grade from sponsors Winchester and Famous Grouse Whisky. All entrants were placed in a draw for a Winchester shotgun which was won by Brian Gwynn of Masterton, (who also received a prize as best bum shot on the day).

RESULTS

1991 Sporting Clay Champion - John Harrison 83

A GRADE 1st Peter Sully 81 2nd = T Hansen 78

J Eastwick J Cockerton
5th D West 75

B GRADE 1st Phil Scully 72 2nd P Milson
67 3rd D Haliburton 64 4th M Finlayson 60
5th G Johnston 59

C GRADE 1st B McIntyre 72 2nd J Stares 69
3rd J Mason 66 4th L McKinnon 65 5th = C Brown 60

L Van Schijndel
DU MEMBER 1st K MacDonald 63 2nd A Elliott 63 3rd E Campbell 62 4th = G Adlam 54
D Glasgow

The Board would like to thank sponsors Winchester and Famous Grouse Whisky for their generous support. ■

NATIONAL SALES ITEMS

BOOKS

Duckshooters: Sportsmen & Conservationists	20.00
Complete Book Australian Birds (Readers Digest)	85.00
Coloured Key to the Waterfowl of the World	14.50
Ducks, Ponds and People	14.50
New Zealand Birds	11.30
The Hawaiian Goose	25.50
Ponds and Lakes for Wildfowl	36.00
Wildfowl by Eric Hosking	50.00
Wetlands by Gordon Stephenson	15.00

STATIONERY

DU Ballpoint Pens Clic Bic - per box of 10 ..	11.20
DU Maxipens - per box of 10	11.20
DU Maxipens - single	1.50
Janet Marshall Bird Cards - set of four	6.00
Ornithological Society Bird Cards - packs of 10	6.00
Waterfowl Writing Paper and Envelopes - set of 10	9.00
Waterfowl Note Paper and Envelopes - set of six	6.00
Postcards - Mute Swan/Brown Teal 10 pack	4.00

APPAREL

DU Hat - Blue/Grey (one size fits all)	25.00
DU Jersey - Red/Green/Blue (state size) ..	76.00
DU Polo Shirt - Dark Blue	40.00

BADGES

DU Decal	1.20
DU Cloth Shoulder Patch	9.60
DU Canada 50th Anniversary Badge	5.60
DU Duck Head Badge - Large Gold	6.75
DU Duck Head Badge - Small Gold/White & Green	5.60
DU Duck Head Stick Pin	5.60

GENERAL

Limited Edition Art Prints	
Blue Duck Art Print by Paul Martinson (Members Price)	85.00
Shoveler Art Print by Russell Jackson (Members Price)	85.00
Mallard Art Print by Janet Marshall - numbered & unsigned	49.50
Fenn Traps Mk 6	28.00
DU Duck Head Flag 62cm x 44cm	41.00
DU Cam-O-Paint	10.00
DU Ashtray	4.60
DU Bottle Opener	4.20
DU Key Ring	4.60
DU Key Ring Nail Clippers	4.20
DU Letter Opener	4.20
DU Tea Caddy Spoon	4.20
DU Teaspoons	4.20
DU Plastic Ruler	1.50
DU Plastic Mugs - set of 3 assorted colours	2.00
Number Plate Surrounds (Pairs) Red, Blue, Green	33.00
Engraved Crystal Decanter	50.00
Roll Bag	24.00
Camo Back Pack	36.00

10% DISCOUNT

off selected items

Roll Bag	\$21.00
Jerseys	\$68.50
Polo Shirts	\$36.00
Hats	\$22.50

Orders through Sales Dept

I ENCLOSE MY CHEQUE FOR \$ IN PAYMENT OR

PLEASE CHARGE TO MY VISA/BANKCARD (Delete to suit)

CARD NO EXPIRY DATE

NAME (Please print)

ADDRESS

POST TO DIANE PRITT, SMITHS ROAD OHAKUNE (58-016)

BUSINESS HOUSES: TAX INVOICE REQUIRED (Tick)