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# Flight

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NEW ZEALAND REGISTERED MAGAZINE

**DUCKS UNLIMITED QUARTERLY  
WATERFOWL JOURNAL**

**\$4.50**



*were quarantined some years ago and planted on site. These trees not only grow year round in standing water but produce favoured food for duck. Fruit first appeared this year. There are also numerous maturing oaks and cherries on shore adding to the wildlife bounty.*

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## Feature Article



# TREES FOR WET PLACES

Plantings on this pond are about 18 years old. From the left are pin oaks, liriiodendron and taxodium distichum.

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Cover Photo: 'Swan Lake' on John and Bunny Mortimers Waikato property.

### 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 (NZ) Incorporated.

### Bunny Mortimer

The French have a proverb - "There is nothing certain but the uncertain." This applies as much to trees as anything else. Some trees can be recommended for growing in wet places but no one can guarantee that they will thrive. In a country with such a range of climates as New Zealand has, few trees will do well in all places, so a selection will need to be made for local conditions. Ask at your nearest nursery.

Some trees will not survive cold winds, others provide food for birds and/or bees, some have magnificent autumn leaves, others have winter interest, some are frost tender.

New Zealand has few indigenous trees of any size that enjoy wet feet. The best known are Dacrycarpus dacrydioides (Kahikatea, White Pine) and Cordyline australis (Ti kouka, cabbage tree). These are very hardy and grow over the whole length of the country, providing food for birds and bees.

Lesser known but not hardy when young is *Laurelia novae-zealandiae* (Puka-tea). It needs protection from frost by harder trees such as established kahikateas, and when mature will seed prolifically if happy in its site.

New Zealand trees have evolved over many thousands of years and give a unique quality to the landscape. Compared with exotics they grow slowly, usually about 30 centimetres a year.

Among exotic trees there is much greater choice, most being hardy and many having attractive autumn leaves. All are deciduous.

The first is the Alder, the best known being *Alnus glutinosa* (black alder), although there are many others. These mostly enjoy wet feet but will tolerate drier sites, and although not having attractively coloured leaves in autumn, have very distinctive pendulous seed pods which remain in the branches during winter. *A.formosana* is a most handsome tree as is *A.nitida*, both bearing healthy-looking shiny leaves right through to mid-winter, being bare for only a few weeks. Both of these are growing at least 2 metres a year for us on Waikato peat,

next to water.

Also doing well for us in cold damp sites are *Betula* species (birches). Many of these have fascinating white trunks which look striking when the leaves turn yellow in autumn. These mainly come from extremely cold climates so do well in the South Island and are fairly fast growers.

When *Eucalyptus* species are mentioned one usually thinks of dry hot sites, but there is one *E.ovata*, that enjoys ample moisture. Indeed it will tolerate a windy waterlogged situation and grow to moderate size, giving good shelter to other trees fortunate enough to be growing on the leeward side of it. It will also grow by the coast.

*E.camaldulensis* is another eucalypt which enjoys a damp site. Found in most parts of Australia it is a tree of riverine locations often subject to flooding. It can grow very large depending on whether or not it is happy in its site.

If you can find a nursery which stocks it, *Glyptostrobus lineatus* is a most rewarding tree to grow. Coming from China where it is planted along the banks of waterways, it is a deciduous conifer



which colours magnificently in autumn. In Spring the new growths have a bluish tinge.

If a decorative tree is wanted, it is hard to go past *Liquidambar styraciflua* which has outstandingly beautiful autumn foliage. Although it tolerates a dry site, it flourishes in very wet soils, but being fairly brittle it requires shelter from strong winds to prevent branches being blown off. Select your trees from the nursery in autumn, as leaf colour varies considerably. Alternatively, buy a large number of tiny seedlings, line them out in your vegetable garden, and plant out the ones that colour best in the following autumn.

For a really spectacular autumn tree *Nyssa sylvatica* is hard to beat. Its brilliant leaves in all shades between yellow and red are on branches which hang low to the ground if not pruned off. It grows slowly but is well worth waiting for.

*Nyssa aquatica* is an American tree with soft yellow autumn leaves, and date-like seeds which hang from the branches until well into winter. The trunk is buttressed at the base, is extremely straight, and is fast growing.

Poplars could take up several pages as there are so many. They are easily grown, readily available, and very cheap. Local

authorities nurseries have stocks available of the latest clones bred for specific reasons. These include rust-resistance, possum-resistance, good form and light branching. When recommending trees for planting on farms, we usually put poplars at the top of the list as they are such encouraging trees to grow.

Many turn butter yellow in autumn and the Chinese poplar, *P.yunnanensis*, has leaves which stay on the tree until midwinter, remaining rich shades of fawn and brown.

Of the oaks the two best for wet conditions are *Quercus bicolor* (American swamp oak) and *Q.palustris* (pin oak). The former grows rapidly into a well-shaped tree with large lobed leaves. The latter is slower-growing, has beautiful autumn foliage and lower branches that hang down. Acorns of both species provide good duck food, those of the pin oak being only the size of peas.

Willows, like poplars, are also very easy to grow. Cuttings from existing trees strike readily in damp soils during winter. *Salix babylonica* (weeping willow) is well known throughout the country as is *S.alba* "Chrysocoma," the golden weeping willow arching golden branches in winter. Both are good for bee food.

Lastly, there are the Taxodiums (swamp cypress) from America. You may have seen them as a backdrop to water-skiers in the Everglades of Florida, their huge buttressed trunks rising out of the water and no land in sight! *T.distichum* is the best known of this genus which is one of the few deciduous conifers. Its needles turn rusty red before falling in autumn.

There are of course many other trees, and shrubs also, suitable for wet places. Many of these are New Zealand natives which supply birdfood. I recommend the book "The Cultivation of New Zealand Trees and Shrubs," by L J Metcalf, p/32, which has a long list of plants.

My short list gives only the better known trees. See what grows well in your area if you are not sure what to plant. Make certain stock cannot get to them, and if planting small trees such as young *Cordyline australis* (cabbage tree) be sure to protect them from pukeko which pull them out to get at their roots.

If planting around a dam or pond, leave open areas as flight paths for birds, and site special trees so that their reflections may be enjoyed from a vantage point. But you may have too many birds for the water to be calm! And please, no trees with summer leaves other than green. ■



One end of the pond with nest boxes and island in the background. L to R Ron Lukies, President of the Carterton Golf Club, Alan Wilks and Melvin Pike.

# Birdie's, Eagles and Ducks

BY DI WILKES

tacts to obtain pinioned birds, to add to specimens supplied from his own breeding operation.

The first area developed comprises a hazard in front of Number One tee. The antics of black swan, canada geese, carolina ducks, scaup and grey teal can prove a distraction, but the wetland has brought considerable interest in waterfowl among members.

Nesting boxes were set up for the teal and although ten clutches were hatched survival rate was disappointing. Eels and rats are likely to be the main cause of losses and efforts are being made to eliminate these.

A second larger area of water was opened up in the boggy centre of a new pine plantation established by Carterton Golf Club. A pair of canada's and a pair of black swan were established and upward of a hundred mallards are to be found

there at any time.

Latest development is an extension undertaken by Melvin Pike on behalf of DU and with financial support from Harcourts, the major Real Estate operator in the Wairarapa and contractor Dick Hume who gave of his time with heavy machinery. The present population is being augmented by grey duck and scaup from Melvin Pike and it is anticipated that Mute Swan will be introduced later.

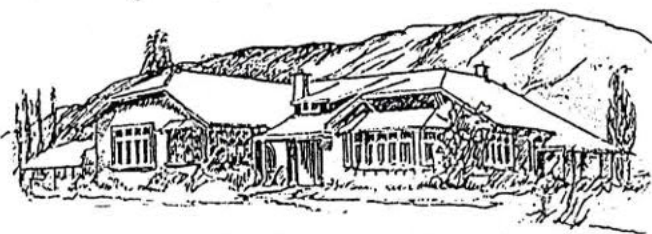
Club members are carrying out planting of the area on a voluntary basis and bring left-over bread which is used to feed the ducks along with grain supplied by Jim Campbell. A bridge provided by Alan Wilks links the island to the mainland near the clubhouse. The drawbridge is locked so that those looking after the ducks can retain misdirected golf balls for sale, the funds being used to aid further development of this small public wetland. ■

The golf club on the outskirts of the small country town of Carterton in the Wairarapa is remarkably attractive considering the size of membership and a green-keeping staff of only two. But two areas of peat bog looked to be beyond any prospect of beautification.

The solution came when Ducks Unlimited were invited, in the persons of Jim Campbell and Alan Wilks, to offer suggestions. A waterfowl reserve was the logical answer but it was the remarkable efforts of local DU member Melvin Pike which turned an idea into reality. Club members such as Grant Smith brought in heavy farm machinery and scrubby bogs were turned into open water and a series of islands. Melvin Pike used his wide con-

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Sos Savage, Fish & Game Council team shoot run in association with this event.



## Feature Article

# The Breeding Biology of an Island Nesting Population of N.Z. Scaup.

Sarah Stokes, Zoology Department, University of Canterbury Christchurch, NZ.

### INTRODUCTION

The endemic scaup, *Aythya novaeseelandiae*, is New Zealand's only surviving true diving duck. Distribution of scaup is nationwide; they inhabit freshwater lakes and lagoons within the North and South Islands of New Zealand. As a consequence of habitat loss, their distribution is now mainly restricted to the north and east of the North Island, and to the high country lakes of the South Island (Kear and Williams 1978, Wildfowl, 29:5-21).

Limited information is available regarding wild scaup populations, particularly with respect to their ecology and their numbers, and much of this material is either speculative or anecdotal. No studies concentrating on their breeding biology, their ecology, or their population size, in the wild, have been undertaken. In contrast, studies of birds reared in captivity have been initiated.

The breeding attributes of captive New Zealand scaup have been documented at Mount Bruce Bird Reserve, Wellington (Reid and Roderick 1973, International Zoo Yearbook, Number 13.), but it is doubtful whether this data can be directly applied to wild scaup populations.

### M.Sc. THESIS

My Masters Thesis is primarily concerned with the breeding biology of New Zealand scaup at Lake Clearwater, situated approximately 150 km west of Christchurch. Investigations have been undertaken on an island in the lake to document breeding attributes for a preliminary assessment of breeding success and population stability. Questions posed include the chronology of nesting behaviour from egg laying to hatching, the level of nest success and factors responsible for nest failures, the response of nesting and brooding females to predators, whether predation is a major cause of mortality, and whether the implementation of a management programme is necessary for the continued survival of the species. The main impetus of the research was to detail the breeding attributes of a wild scaup population, in an attempt to improve upon the limited information available for one of New Zealand's endemic birds.

### METHODS

Field research was conducted during the

1989/90 and 1990/91 breeding seasons. Following the arrival of males and females in early spring, systematic nest searches were undertaken on the breeding island. Nests were tagged to facilitate recognition, and the stage of nesting was recorded. Nests were regularly monitored, with relevant nesting variables annotated, until the nest terminated in success or failure. A trapping programme was implemented during the 1990/91 season following the discovery of mauled female carcasses; the mutilations were characteristic with those produced by feral cats. Nesting success for the population was later derived using standard techniques (Mayfield 1961, Wils. Bull, 73: 255-261), and the level of juvenile recruitment was assessed from direct observations.

### RESULTS AND CONCLUSIONS

Evidence suggests that predation, particularly during the 1990/91 breeding season, was the major cause of mortality. During the 1989/90 season, females apparently suffered far less predation throughout the nesting phase than did females nesting in the following year, and nesting success was higher (58.12%) in the first year than in the second (24.21%). However, anecdotal evidence (direct observations of broods throughout the breeding season) suggests that although more broods survived to hatching in the first season, the level of predation experienced after departure from the nest was greater than in the following season. The lower brood mortality rate, for the 1990/91 season, may be explained by an apparent decline in the number of resident avian predators (possibly a consequence of accidental trapping); substantiated by the infrequency of observed attacks. Interestingly, an equivalent number of juveniles were recruited to the adult population in both years (7).

Both seasons revealed that less than 2% of all the eggs laid (a similar number of females nested and produced a similar total number of eggs) actually produced chicks which survived to juvenile stage, yet of the total number of eggs which hatched, 2.45% and 4.3% survived through to juvenile stage for the 1989/90 and 1990/91 season respectively. This reinforces the previous suggestion that the rate of predation experienced by broods, once on the

water, was lower during the 1990/91 breeding season.

A point of interest was the number of female deaths. 1990 was an apparently aberrant season (in comparison to the previous year), in that a mammalian predator gained access to the breeding island and killed about 20% of the nesting females. Further deaths occurred once the females departed from the island with their broods, and sought the sanctuary of an area of the lake shore sheltered from avian predators. Feral cats were responsible for twelve of these deaths, and three deaths were attributed to harriers.

To infer the stability of a population from just two years research would be problematic at best, yet evidence suggests that predation detrimentally affects the reproductive success of this scaup population. Introduced immigrants, like feral cats and mustelids, seriously threaten the breeding success of any avian population, and if these predators become ensconced within a breeding habitat, then devastation may ensue. This was certainly the case on the island in Lake Clearwater, and around the lake shore. Nesting success was seriously reduced during the 1990/91 breeding season, only 24% of all the nests initiated actually survived through to hatching, and the number of breeding adult females was reduced; ten were killed on the island (including those killed by harriers), and five were taken from around the lake shore.

Post-hatch predation also affected reproductive success. During the 1990/91 season, the mortality rate of chicks was almost half that of the previous season, probably due in part to the lower number of resident predatory harriers.

In view of these results, I recommend that a pre-breeding, predator eradication programme be implemented to ensure the capture of any resident mammalian predators. As Lake Clearwater has a permanent settlement of holiday baches, the opportunity for feral cats and mustelids to breed successfully and survive the winter period is increased, and as such, trapping should be effected both on the island and around the settlement. Such a pre-breeding eradication scheme is necessary, as females searching for suitable nest sites may inadvertently get ensnared.

The application of a post-hatching trapping scheme cannot be judged on the basis of two years research. Further long-term research on the stability of this scaup population, its level of juvenile recruitment and outside, adult female recruitment, is necessary before a recommendation for the eradication/reduction of avian predators can be proposed.

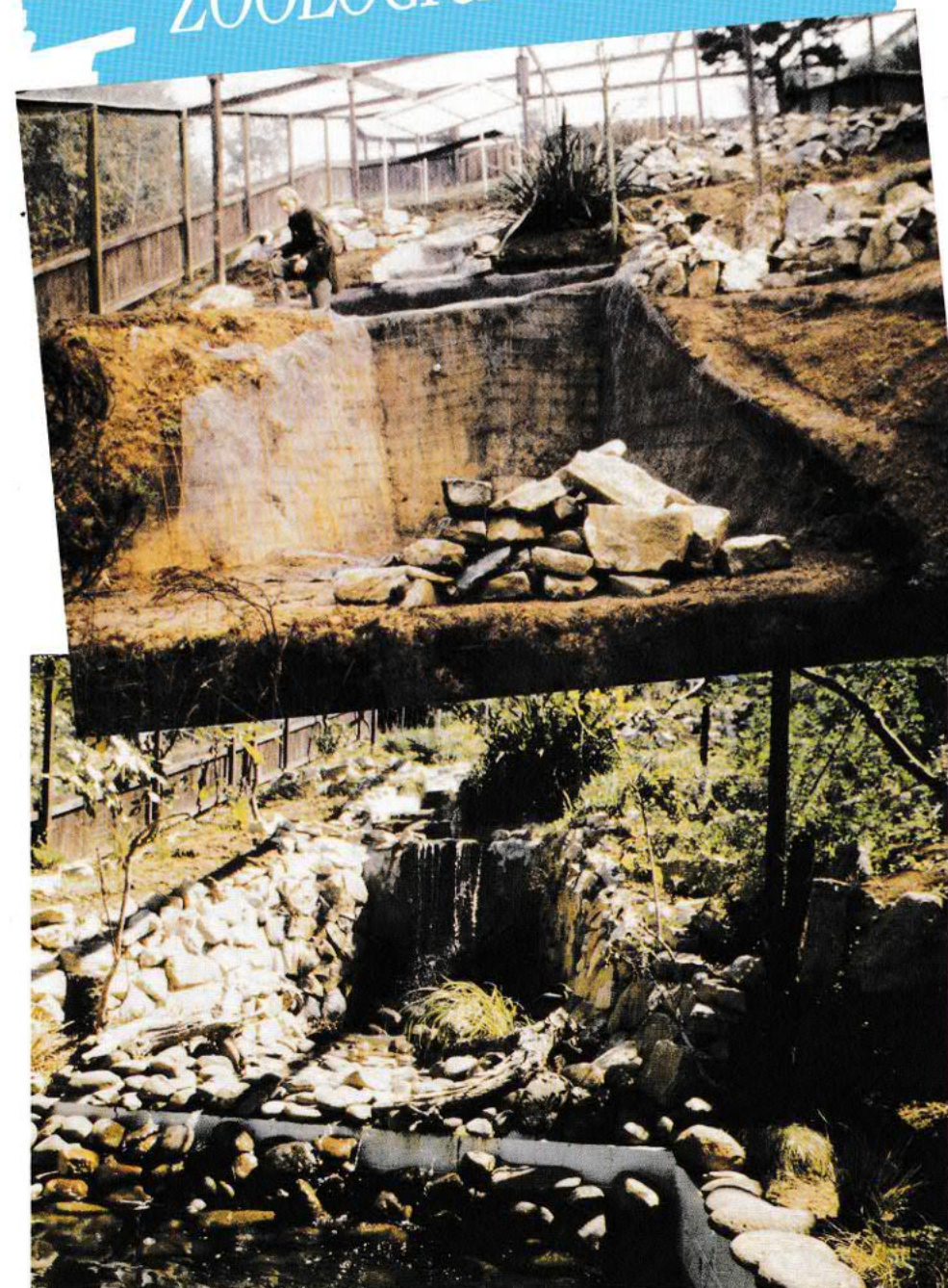
All research has been financed by a Department of Conservation Scholarship, and the expected date for completion of the thesis is December 1991.

## Feature Article

# Blue Duck Aviary

BY ERIC FOX

AT OTOROHANGA  
ZOOLOGICAL GARDENS



Part of the aviary showing construction, and finished result.

Prior to 1989, our pair of Blue Duck had been housed in a 24 sq metre aviary, which had initially been designed for Brown Teal. With the gearing up of "Operation Whio" by Ducks Unlimited, it was decided to look into the possibility of building or renovating an existing aviary for our breeding pair of Blue Duck.

We eventually decided to renovate an existing aviary within our Rotary Park complex, factors leading to this decision were - the aviary structure was already in place, there was a 10 metre fall from back to front, water and single phase power were in place already. The original inhabitants, surplus Kiwis and Red-crowned Kakariki were soon placed with other establishments.

An application for a grant of \$17,000 was lodged with the Lottery Commission to assist with the landscaping, and purchase of pump and filter etc. The grant was duly received.

The aviary is situated on an east facing slope, 26 x 11 metres in size, giving a total area of 286 metres, an average height of 2.6 metres, and is enclosed with 1/2 inch chicken mesh.

Our plan called for the construction of two ponds, an upper and lower pond, the latter to act as the main storage reservoir, connected by a water-race flowing over a 2 metre high waterfall. A single phase submersible pump would be installed in the lower pond, and pump water through a filter and up into the top pond, from where the water would flow over a weir, down the water-race to the falls and lower pond. In order to hold running costs to the minimum, the pump is regulated by a timer, which gives us nine hours pumping per day.

Work commenced on this project in early 1990, and was carried out entirely by hand, as it was not possible to get machinery into or near the aviary, without jeopardising the security of our tuatara breeding colony next door.

When first released into the aviary, the ducks spent most of the daylight hours up in a nestbox, but now they are settled, they are far more approachable than they ever used to be.

Pump is a Chinese made "Show Fou" submersible, single phase, with 10 metre head.



# NEST BOX

SUITABLE FOR GREY TEAL,  
CAROLINA AND MANDARIN DUCKS

BY BILL CLINTON-BAKER

The nest box, as shown in the diagram, is made from treated pine or other timber and is secured on top of a round post driven into the pond bottom. The post should be close to the edge of the pond, for easy inspection but must be in the water at nesting time - up till the end of December - to guard against predators.

The post is halved at the top, the length of the cut being so that the bottom of the box rests on the ledge while the top of the

post fits snugly under the piece of 50 x 50 timber which is nailed onto the back of the box.

A piece of bird netting about 100 mm wide must be fixed inside the box from the bottom of the hole to the bottom of the box. The ducklings need this to climb out.

The top of the box is secured with a roofing nail in one corner, which allows the top to swivel sideways for inspection and putting in nest material. A brick or heavy flat stone should be placed on top of the box to keep the lid in place and also helps to stop it warping in the sun.

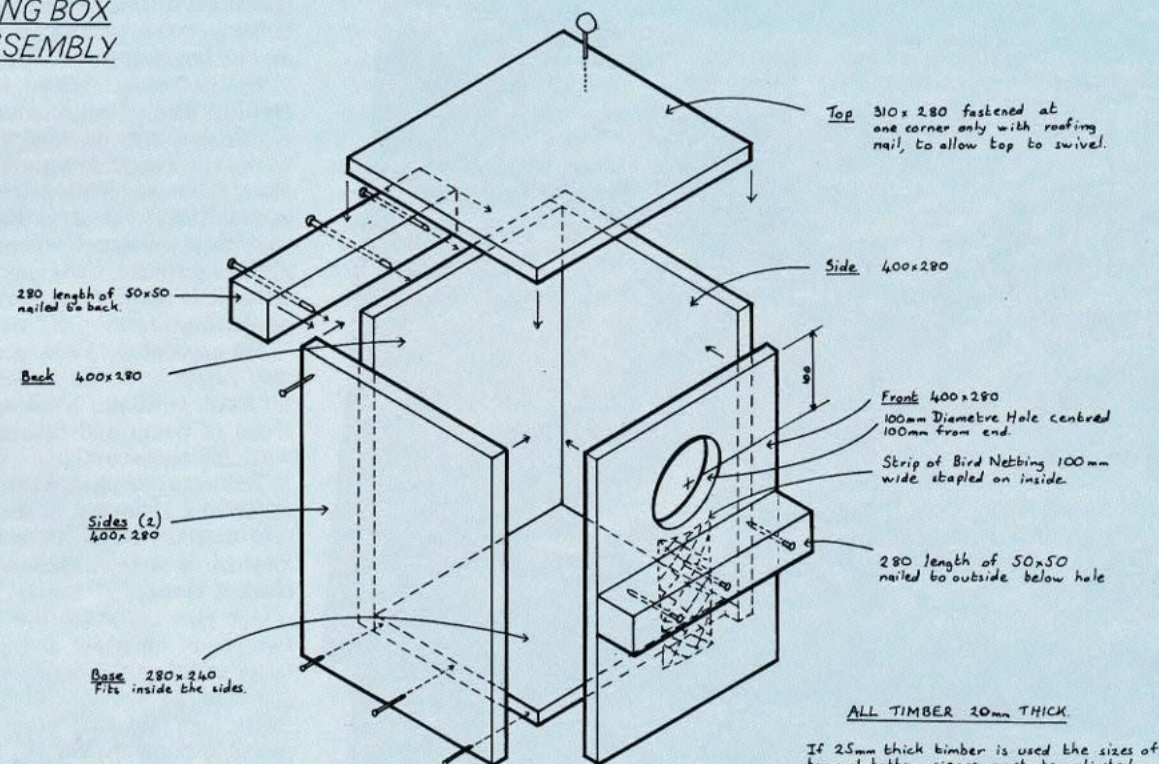
The ramp up to the hole is only neces-

sary when ducks are pinioned. The hole must not be larger than 100 diameter, to prevent mallard from using the box.

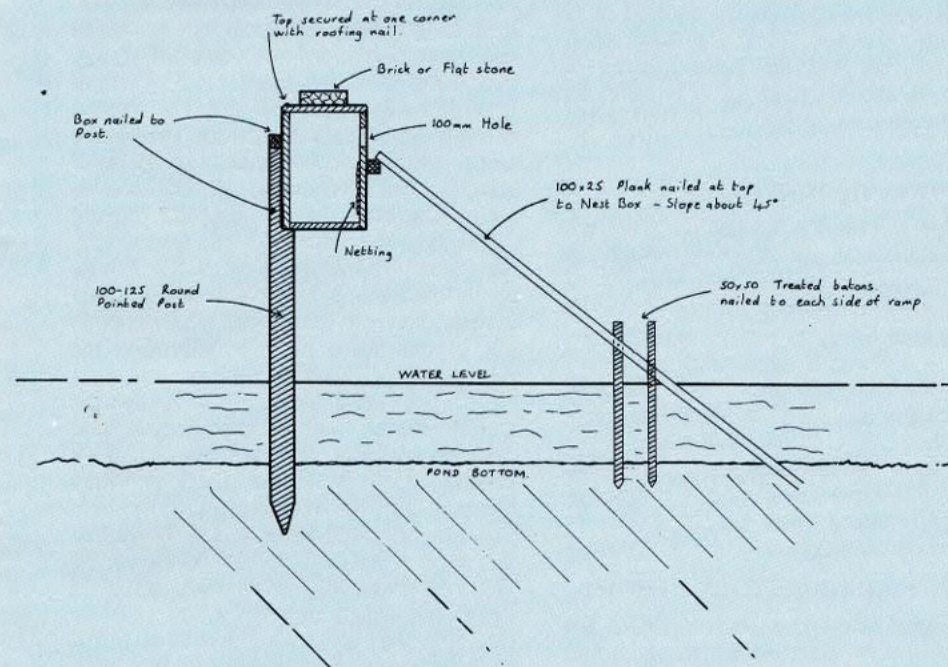
Short hay or wood shavings should be put in the bottom of the box. Starlings may be a nuisance. There is no answer to this except to inspect regularly and turf out the nest material and eggs.

A sitting duck naturally covers her eggs when she leaves the nest with down from her breast which she mixes with the nest material to form an 'eiderdown.' Should one frighten a duck off the nest, cover the eggs for her - she may not return for a while and when covered the eggs keep warm for a long time.

NESTING BOX ASSEMBLY



NESTING BOX INSTALLATION



## LEX HEDLEY D.U. ARTIST OF THE YEAR

Lex Hedley is Ducks Unlimited's 1991 Artist of the Year. Born in Whangarei in 1952, he is married with one daughter and has had a lifelong interest in nature and drawing. Lex completed his education at Otago University and is a professional artist specialising in wildlife and now working in Canada. His paintings hang in private collections in New Zealand, Australia, the United Kingdom and Canada.

He is self-taught and works in pencil, watercolour, gouache and oil but enjoys the lightness and brilliant luminosity of watercolour most of all. In common with many other bird painters, he finds this particular media unsurpassed for rendering the sheen and softness of bird plumage. Although he is happy drawing and painting mammals, birds, and especially birds of prey and waterfowl, are his favourite subjects.

Lex maintains a studio in New Zealand and one in Canada where he has been working on a series of bird paintings for an upcoming book. Although his first and greatest passion remains the natural places and wildlife of New Zealand, the wild creatures of the coastal forest surrounding his current residence in British Columbia are a daily delight.

This area is amazing in its sheer diversity of wildlife. Among the waterfowl; mallard, green and blue winged teal, northern pintail, northern shoveller, American widgeon, canvasback, and lesser scaup, occur locally. Large mammals are also common. Bears, wolves, mountain lions, coyote, fox, moose, and several deer species live in close proximity.

Bears can be encountered (even in town on occasion) and already this year seven 'problem' black bears have been shot by conservation officers. Lex says their presence in the bush on his sketching and painting trips concentrates the mind wonderfully!

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# THE 1991 ANNUAL GENERAL MEETING

BY MARIE MCENTEE,  
DU SECRETARY

Neil Hayes officially opened the 1991 AGM and welcomed all those present, in particular the Canadian High Commissioner, Mr Jarvis and his wife and son, Bob Scuito from DU Inc and his daughter Jennifer, Don and Margaret Merton and Eric Fox. 49 People were in attendance and apologies were received from 11 members. The apologies and the confirmation of the 1990 minutes which were published in the September 1990 issue of 'Flight' were sustained on the motion of A. Elliott/A. Wilks.

## PRESIDENTS'S REPORT:

Neil summarized his report as published in the June issue of 'Flight,' by pointing out some of the year's highlights. In particular he paid special tribute to Mr B. Coe who had donated the production costs of the past year's 'Flights.' Neil also thanked Brendan for time and effort he puts into each issue as editor. Neil moved on to talk about the contribution put in by each of the project supervisors and he thanked them for this. Mention was made of the success of the national raffle, a major annual fundraiser for DU. Neil said that DUNZ's international status had been further enhanced this year by Grant Dumbell's trip to the UK for the launch of Wetland Link International, which had been made possible through the sponsorship of British Airways and The British Council. Further international links were strengthened with DU Inc and DU Canada with David Rice attending the American annual conference in San Diego, and Grant Dumbell and Marie McEntee attending the DU Canada conference in Halifax, the latter being made possible through generous sponsorship.

## FINANCIAL REPORT:

The Treasurer, Glenys Hansen summarized the report as published in the June 1991 issue of 'Flight.' Glenys explained that total income was down slightly, mainly as a result of the change in the chapter financial year to align them with the national organisation's financial year from April 1 to March 31. Sponsorship of the Pearce Wetland's was progressing well mainly through the major contribution of Mr B. Coe. Revenue from subscriptions had increased due to members adopting the new membership classes. On the expenditure side, Glenys said that overall this was down on the previous year, however the debt burden was markedly lower than the same time last year due to the

re-financing of the Pearce Wetlands loan with the Rural Bank, as well as a major reduction in the loan, and development on the Sinclair Wetlands slowing down. In response to a question on what the expenditure of \$4,200 under the Pearce Wetlands had been spent on, Glenys explained that these were for professional fees required for refinancing the loan. Grant Dumbell went on to explain that there had been an aggressive debt reduction programme which had seen a large amount of debt being retired. As a result of this DU now has more flexibility to develop the conservation projects fundamental to the organisation. The President's report and financial statement as audited was adopted on the motion of G Hansen/C Hooson. The meeting then approved the continued appointment of Eastwood and Partners of Masterton as auditors on the motion of G Hansen/D Pritt.

## ELECTION OF DIRECTORS:

As Mr A Tannock did not wish to seek re-election it was sustained on the motion of D Johnston/J Campbell that Mr Howard Egan be nominated as a member from the floor. There being no further nominations N Hayes declared H Egan's appointment. Special mention was made by N Hayes to the contribution Andy Tannock had made to DU both on a national and a local level. David Rice, David Smith and Alan Wilks stood for re-appointment and N Hayes declared their appointment on the motion of G Dumbell/ A Elliott.

## EXECUTIVE DIRECTORS REPORT:

To begin, Grant Dumbell mentioned the current membership status. He said that total membership was down 6.9%. The membership coupons in 'Flight' had been moderately successful, however a concerted effort was required in this vital area. Sponsorship proposals had been sent to a total of eight companies and although none of these had been financially successful, the response from companies regarding the proposal format and approach had been very positive. With regard to the chapter's, Grant went on to explain that four dinners and several clay target shoots had been successfully held, bringing in a total of \$29,500. DUNZ had over the year attempted to promote itself on a national level by attending and displaying at a variety of events eg. I.O.C in Christchurch, the Rotorua Sportsman's Show, and Tiri Tiri Matangi Brown Teal release, with a permanent display having been erected there. Along with this DU's profile had been increased through a variety of new-

spaper articles and television exposure. Grant reinforced Neil's comment on the strengthening of international ties through the attendance of DU at Wetland Link and the DU Canada and DU Inc conferences. In conclusion Grant thanked the members and Board for their support.

## OPERATION WETLAND:

Project Supervisor Jim Campbell. Jim emphasized the need for more finance to be spent in this critical area. He said that while a lot of work was being carried out, the bulk of this was by private individuals on private land. Jim emphasized the need for pressure to be brought on the government to review and change their current rate scheme for areas designated as wetland. Rate relief was critical here to encourage more wetland development. Through ties being recently made with Wetland Link, Jim said it had indicated the importance of securing the futures of The Pearce and Sinclair Wetlands. Successful attempts had been made with DoC to also secure the future of the Kaituna Swamp in the Bay of Plenty. DU was also closely monitoring the progress with the Whangamarino Swamp. The Manawatu Chapter had recently completed a proposal to put to the board to help determine the future of the Makerua Swamp. Jim went on to pay special tribute to individual members who had excelled in wetland development over the past year, namely Brendan Coe at Pateke Lagoons, Tony Flexman and the Windermere Game Bird Conservancy, Bud Jones in the Wairarapa and recent privately funded work at the Waimara Wetlands in the Wairarapa. H Egan commented that DU's real value in this area was the substantial expertise it has in wetland creation and development.

## SINCLAIR WETLANDS:

As no report was received from the wetlands manager, N. Hayes briefly commented on progress at the wetlands. He said that good progress had been made in increasing the number of captive waterfowl for display. A planting exercise had also been attempted with moderate success. Work in all areas of the wetland would be an on going process. Neil said that recognition of DUNZ's work in these wetlands had resulted in DU becoming a founding member of Wetland Link International.

## OPERATION PATEKE:

Project Supervisor Neil Hayes. Neil reported on the year's successes which saw 135 brown teal being reared. Of these 76 had been released into the wild, 34 at Mimiwhangata and 42 in the Purerua

Peninsula in The Bay of Islands. In total 1411 birds had been raised by DU since the start of the project. DU's work had been recognised in Janet Kear's book 'Man and Wildfowl.' Recently under the guidance of Grant Dumbell DU had embarked on a radio transmitting programme to establish data on the long term survival of birds released into the wild. This was being carried out in association with DoC at Mimiwhangata. Follow up research had been carried out on Great Barrier, with results still to be published. N. Hayes reported on the success of the Tiri Tiri releases which had seen released broods and their offspring breeding in the wild. G. Dumbell was also currently writing the Brown Teal national recovery plan. 26 members were now involved in the programme, and Neil thanked them for their contribution of time and effort to this project. Neil also thanked Alan Wilks, Jim Campbell and DoC for their support. THE BROWN TEAL BREEDER OF THE YEAR AWARD was jointly won by The Otorohanga Zoological Society, the Kati-Kati Bird Gardens and Zoo New Zealand. Mr Jarvis presented Eric Fox from the Otorohanga Zoological Society with his award.

## OPERATION WHIO:

Dr Grant Dumbell reported on this project. He said that DU was now responsible for the national breeding stock. Grant reported on a few problems such as inbreeding, fertility, diet and pair bonding which appeared to have been resolved this season. Out of the 11 breeding pairs in 1990, 9 young were raised, a 125% increase on the previous year's results. The overall goal is to see 30 birds annually released into the wild and it is hoped that birds will be available for release in one year. Grant reported that two wild females had been added to the captive birds to add genetic diversity to breeding stock in an attempt to counteract inbreeding. Once again The Wildfowl and Wetlands Trust in the UK has reported good breeding results and their experience with artificial incubation has widened DU's knowledge of this technique. The Blue Duck Breeding Group which is chaired by DU has once again been extremely successful, and all recommendations from this group are then passed to the Doc Blue Duck Liaison Group of which DU is a member. Continued research and analysis of breeding stock has shown that captive birds have not bred before their third year. Increasing the protein content of their diet has helped to increase fertility. Currently this season there are 17 pairs in captivity, and 8 spare males. These excess males are used as social stimulants when a breeder can only hold one pair. In raising 5 blue duck last season, The National Wildlife Centre became the winner of THE BLUE DUCK

BREEDER OF THE YEAR AWARD. Jim said that in taking the award back to the Wildlife Centre, he would strongly recommend the completion of the public blue duck aviary which had been planned for Mt Bruce.

## OPERATION ROYAL SWAN:

Project Supervisor Dave Johnston. This was Dave's first year as co-ordinator of the project, as a result he explained to members the painstaking efforts required to capture these magnificent birds from Peacock Springs in Christchurch and distribute them to breeders around the country. Dave emphasized the need for permanent means of identification and the importance of banding and sexing the birds when caught. He said that the gene pool was still too low, and to avoid inbreeding a stud book was imperative to the future of the project. Dave explained that tighter co-ordination was required with DoC in an attempt to streamline the project. As well it would be advantageous for there to be a South Island co-ordinator, and Dave said that he was currently liaising with a Christchurch contact. Dave believed that this project was a vital public relations exercise for DU as many birds were placed in gardens that were frequented by the public. He thanked Lady Diana Isaacs, Jim Glover, Jim Campbell, Alan Wilks and all the Royal Swan breeders for their support. Neil Hayes went on to thank John Andrew and Sharon Walker of DoC for their continued help with this project. As a result of raising 4 mute swan, Mr Jarvis presented Mr Robin Borthwick of the Wairarapa with the 1991 ROYAL SWAN BREEDER OF THE YEAR AWARD.

## OPERATION GRETTEL:

Project Supervisor, David Rice. David recapped on the status of grey teal and the project from the time he had become co-ordinator. He said that G Dumbell and H Egan had located around 900 nest boxes. 300 boxes have been planned for erection by chapters this season. David said that if any members wished to participate in this project then they should contact the DU secretary. Mr T. Caithness commented that in his view there should be no initiative from DU to see grey teal placed on the licence. There was overall agreement with this comment. Howard Egan emphasized the importance of cleaning the boxes before the breeding season, and that this was an on going commitment. Grant Dumbell said that DU was now moving away from the placement of a few boxes on a pond, to the erection of 'factories' where around 100 boxes would be placed in each pond. DU was also involved in a study looking at the building of a starling box on the back of the teal box to prevent starlings from nesting in the grey teal hole.

## OPERATION BRANTA:

Project Supervisor, Chris Hooson. Chris explained that the DU Board had this year re-evaluated the guidelines for this project. Now that the Canada goose was well established in parts of the North Island there would be no further transfers of birds from the South Island. DU's emphasis was now to band the birds in association with DoC and the Fish and Game Councils. It hoped that such banding would help in gathering information on population dynamics. Chris said that he was disappointed with the support for the project from recreational hunters. Further banding was planned for January and it was hoped that a DU junior competition would be linked to this event. Chris thanked all the members who voluntarily gave of their time to participate in this project.

## EDITORIAL REPORT:

Neil Hayes gave this report on behalf of Brendan Coe. He said that there had been another four great issues of 'Flight,' and he attributed their quality to the outstanding contribution of Brendan and his company Lithographic Services. He said that DU was receiving a large number of articles for publication. Once again there had been excellent support from a variety of advertisers, in particular, Winchester N.Z., Reloaders, and Rod & Rifle. Revenue from advertising had increased over the past year.

## PRESENTATION OF THE 1991 ARTIST OF THE YEAR

This was awarded to Mr Lex Hedley. Eric Fox gave a brief summary on Lex. He said that he was a third generation New Zealander who had taken up painting commercially four years ago. His special interest was with birds of prey. He was currently residing in Canada. Neil Hayes then unveiled the painting of a pair of grey teal in thick cover. Neil encouraged members to buy the national raffle tickets where the painting was first prize. He also said a limited number of prints were available for purchase.

## GUEST ADDRESS:

The Canadian High Commissioner, Mr E Jarvis. Mr Jarvis explained that he was raised in the 'pot hole' region of Canada so had been closely associated with waterfowl from an early age where he had witnessed a conflict between farming and wetland development. It was this agricultural background which had influenced his choice in working in N.Z. However, despite this affinity for farming, Mr Jarvis congratulated DU for their work in restoring large areas of drained land into wetland. He said that N.Z and Canada now both recognised the need to conserve for future generations and DU's work was



one successful attempt at ensuring this happened.

#### GUEST SPEAKER:

Mr Bob Sciutto, Senior Vice-President DU Inc. Bob began with thanking DUNZ for the opportunity to speak, and he said that it was a pleasure for both himself and his daughter Jennifer to be in N.Z.



Bob Sciutto, Senior Vice-President, D.U. Inc addresses the meeting.

Bob said that the sincerity with which DUNZ bought to the area of wetland conservation was inspirational, mirroring DU in the US, Canada and Mexico. He emphasized the truly international status of DU and it was gratifying to see that each year more individuals internationally were becoming involved in wetland conservation. Bob emphasized that it was the volunteer spirit of DU which brings them together and makes the organisation strong, thus allowing DU to remain a leader in wetland conservation. Bob then went on to outline the accomplishments of DU in North America. DU Inc's volunteers have raised over the past year US \$68 million bringing the total fund raising effort to date over US \$630 million. The dinner and special event system were the main income generators, with over 5268 events being held last year. These events are an excellent source of membership and renewals. DU Inc has just branched out into direct mail which resulted in 13,000 new members. The bulk of DU Inc's funds still go to Canada where the main breeding grounds exist. This year DU Inc re-organised their domestic habitat programmes into three groups: 1. Public Lands and Acquisitions, 2. Private Lands and 3. Research and Evaluation.

Bob then moved on to talk about the North American Waterfowl Management Plan and its implementation through habi-

tat joint ventures and combined research efforts. DU Inc has also launched a green-wing magazine called 'Puddler,' for its junior members. Efforts have also been made this year by DU Inc to become active in the political arena and as such, DU, The Nature Conservancy and the US Fish and Wildlife Service have banded together to conserve the wetlands of the ACE Basin, a 350,000 acre tract of undeveloped marsh in the USA. US \$6 million has been donated through sponsorship for this project. Bob said that although DUNZ was distant in miles from DU Inc, we are close in spirit and he hoped that the ties would become stronger.

#### GUEST SPEAKER:

Mr Don Merton Q.S.M from the Department of Conservation. Don began his speech by giving an overview of prehistoric N.Z through the eyes of DoC scientists. Don then moved on to talk about the Threatened Species Unit emphasizing that the main thrust of this unit was to draw up recovery plans for the many endangered species in N.Z. Don moved on to talk about his involvement with black robin and kakapo, as well as giving a run down on the main endangered birds such as blue duck, brown teal, black stilt, kaka etc. In conclusion Don praised DU for their pro-active approach to conservation in N.Z saying that DU put its money where its mouth was.

#### PRESENTATION OF THE BILL BARRETT TROPHY.

This year Mr Merton presented the trophy to Mr Jim Campbell, for his involvement since the 1970's with wetland devel-



Don Merton presents the Bill Barrett trophy to Jim Campbell.

opment, and his central involvement with DU over the past decade.

#### GENERAL BUSINESS

As there was no general business Neil Hayes thanked all those members present for their attendance. Following this Neil declared the meeting formally closed at 6 pm. At that point Jim Campbell announced that this meeting was the last to be chaired by Neil as he was standing down from the presidency. Jim thanked Neil for his considerable contribution and many years service both as President and as Secretary

#### THE DINNER/AUCTION

At 7 pm members gathered for the traditional AGM dinner/auction. After dinner, the 1991 CHAPTER CHALLENGE, was awarded to the Auckland Chapter who raised \$11,000 during the 1990-1991 financial year. Following this, THE JIM CAMPBELL TROPHY, which is given to the decoy carver of the year, was awarded after careful deliberation, to Mr Steve Gibbs for his fine carving of a Shoveler. The entries in this section had all been of an extremely high quality suggesting a fine future for this competition. The winning carving will now become the official Jim Campbell Trophy. Steve also announced that he would donate a percentage of his sales to The Waterfowl and Wetlands Trust. After the presentations the auction started, and once again it was under the skilful control of Mr Bill Wilkinson. After some heavy bidding on certain articles in both the silent and main auction a considerable total was raised. The board would like to thank all those members who donated items for the auction.

#### NEW LIFE MEMBERS

As a result of Ducks Unlimited New Zealand's representation at both the Ducks Unlimited Inc convention in San Diego and the Ducks Unlimited Canada convention in Halifax, we have recently signed 27 Members from the United States. The Directors would like to thank Clark Springer, Joe Hall and Hazard Campbell from DU Inc, and David Rice, who were instrumental in encouraging this level of support from our American friends. In addition, we have also recently received Life Memberships from Australia, Canada and Papua New Guinea. Ducks Unlimited thanks all these new Life Members for their exemplary support. The full list of our newest Life Members is:

Tom Arvin  
Elton Ball  
Mr K Ball  
Mrs K Ball  
John Belz  
Beatty Burke  
Robert Corrigan Jr  
Bill De Journett  
Mr and Mrs Dean  
John Egger  
Robert Ehrlich  
Eugene Engrav  
James Hulbert  
Garth Jackson  
Donald Kaatz  
Bud Kapilla  
Mack Karnes  
James Konkel  
Omer Long  
Stephen Lund  
Jean Luxford  
Mr & Mrs Jack Nugent  
Marc Pierce  
John Pittenger  
Peter Pund  
Sis and Klard Reilly  
Edwin Roberts Jr  
Richard Trethewey  
John Walker  
Mr E Walter  
Thomas Williams III

#### SPONSOR AND TRADE MEMBERS

Since the June issue of 'Flight' we have received further Sponsor and Trade Memberships for this year and we would like to gratefully acknowledge these.

Silver Sponsor: Bruce Buchanan Ltd  
Mr R Jary Jack Kamman

Bronze Sponsor: Caroline Carey  
Mr R K Dawson  
Allan Elliott  
Mike Finlayson  
Malcolm Lewis  
A M McIntosh  
Kerry Oates  
Mr F S River  
Robert Sowman  
Mark Timms  
Alan and Di Wilks

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D S Colson  
Robert Corker  
P K and C M Hope Ltd  
Kennedy's Artrageous  
Mr G P Mumm  
Pukeko Industries  
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#### NEW HEADQUARTERS FOR DU INC AND DU CANADA

DU Inc has announced that they are developing new headquarters on a 25 acre site in association with the local county in Memphis Tennessee. Relocation to this site is planned for the northern summer of 1992. DU Canada has also recently received final approval to begin development of their new headquarters building and education centre, at 'Oak Hammock Marsh' near Winnipeg. Oak Hammock Marsh was restored as a wetland by DU Canada and it is now recognised as a wetland of international significance. DU Canada hopes to open this facility at their convention in 1993.

#### DUCKS UNLIMITED NATIONAL CLAY TARGET CHAMPIONSHIPS

##### TAUPO 14 JULY 1991

The first of the 'new' style Ducks Unlimited Championships was generously hosted by Taupo Gun Club in Magnificent conditions. Shooters came from throughout the North Island to participate with a strong Auckland contingent.

Ducks Unlimited was presented with cups for each event and the Championship HOA by well known shooter and DU supporter Bill Becroft. Bill's magnificent gesture was greatly appreciated by all those attending, with Bill being presented a Certificate of Appreciation from the DU Board.

Scores shot on the day were average and in many events shoot-offs were not required. Listed below are the results, and Ducks Unlimited would like to thank those shooters who supported the event, and especially Bill Becroft and Taupo Gun Club.

#### BROWN TEAL AT MIMIWHANGATA

Following on from the recent release of Brown Teal at Mimiwhangata in May, Grant Dumbell and Tim Grant the Mimiwhangata DoC ranger, have been undertaking a radio tracking study to assess the bird's survival, habitat use and breeding performance. This study is planned to continue into Spring, and results will be published in 'Flight' at a later date.

#### COMING EVENTS

##### AUCKLAND CHAPTER

Annual Chapter Clay Target Shoot: This event is planned for Sunday, October 13 and will be held at Clevedon in South Auckland. All Auckland and Waikato members will receive further notice of this event. For further information, please con-

25 Skeet	HOA	G Whale	25
	A Grade	B Becroft	24
	B Grade	G Williams	22
	C Grade	David Smith	20
15 Sparrows	HOA	G Paton	15
	A Grade	C Nixon	15
	B Grade	G Whale	13
	C Grade	Paula Gray	13
10 pair Double Rise	HOA	M Harvill	20
	A Grade	Denis Smith	19
	B Grade	B Flight	14
	C Grade	D Phillip	16
20 Single Barrel	HOA	R Nixon	20
	A Grade	G Paton	19
	B Grade	R Aitchison	16
	C Grade	Paula Gray	17
20 Points Score	HOA	Denis Smith	60
	A Grade	M Harvill	60
	B Grade	P Scully	57
	C Grade	J Sax	56
25 Single Rise	HOA	M Havill	25
	A Grade	B Becroft	25
	B Grade	G Whale	24
	C Grade	Paula Gray	25

1991 CHAMPIONSHIP HIGH GUN

DENIS SMITH 156



tact Marie McEntee at PO Box 9795, Newmarket, Auckland or phone her on Auckland 686-772.

Annual Dinner/Auction: This has been planned for Saturday February 29, 1992, at The Centra Hotel in central Auckland.

PLEASE KEEP THIS EVENING FREE for what is hoped will be a memorable occasion and venue for the chapter's fourth dinner.

#### WELLINGTON CHAPTER

The following events are planned for chapter members and friends:

Family Wetland Day: Sunday 22 September. The day will include visits to newly established wetlands in the Horowhenua, beginning at Mr Brendan Coe's 'Pateke Lagoons' at 10.30 am. A tree planting programme will also be undertaken during the day.

#### JUNIOR MEMBERS FIELD TRIP

On Wellington Anniversary weekend, January 1992, we will be banding Canada Geese at Diane Pritts property at Smiths Road, Ohakune. Junior members are invited to attend and to participate in this project.

Would interested Junior members please contact David Rice at P O Box, 266, Papakura or telephone (09) 299-8330 (business hours) or 296-0078 (residence).

## BOOK REVIEW

### New Zealand Wetlands - A Management Guide

A joint publication of the former Environmental Council and the Department of Conservation.

The former Waikato Catchment Board undertook the responsibility for researching and writing the guide with that Board's planning officer Robert Buxton, carrying out much of the task. The final collation was by Pam Cromarty (DoC) and the text overseen by Gordon Stevenson (ex-Environmental Council). Assistance was given by our own Neil Hayes and Grant Dumbell. Funding was largely from Landcorp and DU.

The following description appears on the back cover:

"This guide offers practical help for those who work in or near Wetland, or those who wish to manage them. Along with descriptions of the many types of Wetland in New Zealand, the plants and animals which inhabit them and the other values of these environments are ideas on how to make a Wetland. The main focus of the guide, however, is to introduce

some of the basic aspects of managing Wetlands and to promote the realisation that such management requires careful consideration of many factors."

I found this description to be accurate. You should approach this publication as a guide to assist you in obtaining information on the New Zealand Wetlands scene. It will assist many of us - both in the classroom as resource material and for those in the field. It not only gives an introduction to each subject but has useful references for those who seek more detailed information.

The chapters on 'Wetland Management Guidelines' and 'Making and Restoring Wetlands' should be read by all about to embark on their first project.

The need for a water right application, effect as to the Resource Management Bill and land covenants are set out to alert all as to the need to tread warily.

To my mind every school and DU member should have one of these in their library.

D G Smith

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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

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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
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## BADGES

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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

<b>Limited Edition Art Prints</b>	
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
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