



Winchester (NZ) Ltd

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



Blue Duck

Population in the wild: 3000-5000.
Distribution: Tongariro National Park,
Ureweras, Southland, Fiordland.



WINCHESTER®

MORE THAN A NAME. A LEGEND.

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PO BOX 74, HAMILTON, NEW ZEALAND

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COVER PICTURE

Carolina Wood Duck — Male
(DU Photo)

Other Photography: Bill Barrett, Neil Hayes, Murray Dench, Garry Girvan.

Ducks Unlimited (N.Z.) Incorporated is a private, non-profit membership organisation dedicated to the preservation, restoration and maintenance of wetlands habitat in New Zealand and to the propagation of the country's rare waterfowl as a valuable natural resource. The organisation was founded in May 1974 by a group of far-sighted conservationists and incorporated by them in June 1975 at Wellington, New Zealand. The national headquarters mailing address is PO Box 74, Hamilton and the registered physical address is 84 Houchens Road, Hamilton. "Flight" is the official quarterly publication of Ducks Unlimited (N.Z.) Incorporated reaching 800 devoted members and friends concerned with waterfowl conservation. D.U. membership begins at \$3.00 p.a. for Junior to \$12.50 for Full membership, with provision for Trade and Life members. Membership of Ducks Unlimited carries with it subscription to this publication. To assure prompt delivery, members who move are urged to forward their new address along with current membership details to national headquarters. Letters and contributed manuscripts and photographs should be addressed to the "Flight" Editor. Views expressed by contributors are their own and do not necessarily constitute those of Ducks Unlimited (N.Z.) Incorporated.

"FLIGHT" IS PRINTED BY LITHOGRAPHIC SERVICES LTD, PETONE

EDITORIAL

WETLAND SURVIVAL

Members will be pleased to hear that at long last major moves are afoot to protect some of our remaining wetlands. The Government has commissioned a joint committee made up of members of the Environmental Council and the Nature Conservation Council, to draw up guidelines for the protection of New Zealand's remaining wetlands.

Ducks Unlimited recently made submissions to the Environmental Council in respect of wetland preservation and suggested that the time was long overdue for our remaining major wetlands to be declared Wetlands of International Importance. Currently only two New Zealand wetlands feature on the international list — and these are very permanent wetlands which could not possibly have their plugs removed — while in the United Kingdom 19 wetlands have already been declared wetlands of international importance; thus giving the wetlands complete protection. So we have a long way to go to catch up with the *intensively farmed* UK.

In DU's submissions, mention was also made about the need to prevent public money being expended by the Rural Bank to help farmers drain wetland habitats. A Water Right is of course needed before the drainage of major wetlands can be carried out, but it is a sad fact that catchment boards who grant water rights have continually failed to appreciate the immense value of wetlands. A classic lack of appreciation can be seen in the Wairarapa Catchment Board's proposals to drain one third of Lake Wairarapa. Lake Wairarapa being considered to be one of the country's most important natural wetlands.

It is also a sad fact that for the eighty two years of this century, New Zealand drainage schemes have continually reduced swamp areas and wetland habitats to the detriment of wildlife, plantlife, and water table levels.

Of course, these overlooked considerations have immense scientific, aesthetic and economic values. For not only are swamps and wetlands the most productive habitats known, they also serve very important and essential hydrological functions and the drainage of wetlands invariably has serious repercussions on the whole water cycle; mainly because swamps and associated wetlands provide a 'buffer' against river floods and also contribute to the base flow of streams during drought conditions. And, very importantly, wetlands help to maintain local water table levels, which are so important to successful farm management.

Unfortunately, these very basic considerations are invariably disregarded by development agencies, and such organisations must be held largely responsible for the many incredible floods experienced in recent years. Six 100 year floods in the Wairarapa over the last two years provide a classic example of the blatant disregard of these basic considerations. (And having been marooned for three days in one of these hundred year floods, I can assure members that they are not very pleasant.)

The development agencies are also largely responsible for the increasing need to irrigate many areas of farmland that has not previously needed irrigation. Unfortunately, catchment boards throughout the country invariably consist of members who are business people — contractors, accountants, bankers, and so on; a few have farmers on the board, but generally the board members know little about water and land management, let alone anything about ecology, wildlife management and other environmental matters.

So all in all, the whole history of New Zealand's wetland management to date is a very sad story, but all conservationists will be pleased to see some constructive moves by the Government to permanently protect our few remaining wild wetlands; a move which is, of course, essential if we are to see the survival of many of our rare birds.

NEIL HAYES



DU NEWS



CHERYL PIRANI

The Ducks Unlimited Board of Directors would like to record their sincere thanks to immediate past Editor Cheryl Pirani (pictured above). Since DU's inception, and over an eight year period, Cheryl produced for DU 32 issues of 'Flight'. Everyone who read 'Flight' during this period will appreciate the tremendous amount of work involved in writing, compiling, typing, editing, laying out, arranging the printing, addressing and posting each issue. In addition, Cheryl was a DU Director between 1975 and DU Secretary for five years and has also, to date, recorded the minutes of all but one of the annual meetings held so far. Those members who read the last issue of 'Flight' will appreciate Cheryl's outstanding ability at presenting the facts of an annual meeting.

The DU Board, and we are sure all members, thank Cheryl for her outstanding contribution. Cheryl is now taking a well earned rest, but knowing her as we do, she will still be working hard for DU.

1983 ANNUAL MEETING

The DU Board, with the encouragement of many members, has decided that the next annual meeting will again be held at the Tokaanu THC Hotel. Accommodation at THC Tokaanu is currently being increased in capacity and it is envisaged that all who require accommodation will be able to stay at the hotel. July 9 has been set down for the meeting and it is hoped that before members depart for home on the Sunday, we will be able to hold a two or three hour get together over coffee and biscuits on Sunday morning. More details in the next 'Flight'. But do set the weekend of July 9-10 aside.

RAFFLE TICKETS

Members will have noted with pleasure the Hamilton Chapter's presentation of \$2000 to head office — as outlined in the last 'Flight'. A large proportion of this money was raised from the Chapter's participation in a nationwide raffle; a raffle where prizes include houses, cars and so on. It is the Chapter's aim to increase their distribution of raffle tickets and most members will likely be offered a book of tickets over the next few months. The DU Board supports these efforts by the Chapter and would very much appreciate your support for the purchase of tickets. For the current year the Chapter is aiming to raise sufficient to be able to present \$3000 to head office at next year's annual meeting at Tokaanu.

DU GOES TO SCHOOL

At a recent hobbies evening at the NZ Technical Correspondence Institute your Editor, who is an engineering tutor at the institute, staged a display of live waterfowl. The display, shown below, featured scaup, brown teal, grey teal, shoveler, grey duck, and a Carolina Wood Duck male. It created considerable interest among the several hundred who attended.

NEW DISTINGUISHED MEMBERS

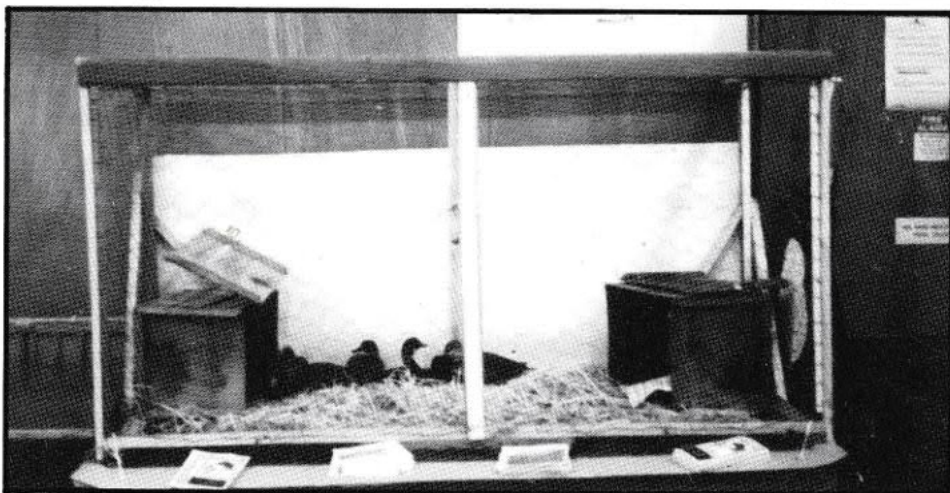
We are pleased to record that the Upper Hutt Branch of the Royal Forest and Bird Protection Society has joined as a full member. After a recent visit to view the waterfowl collection of DU Director Jim Glover, who has all the NZ waterfowl species in his collection, the Upper Hutt Branch said they were pleased to support DU's efforts with rare waterfowl.

We are also pleased to record the memberships of two other distinguished people — well known wildlife artist Janet Marshall of Stratford has become a member, as has Bill McLay, President of the Otago Acclimatisation Society.

These three new memberships certainly indicate the diversity of DU's membership.

SUBSCRIPTIONS

The new 'Flight' format coincided with a subscription reminder from our Membership Secretary June Bronger. This combination seemed to work extremely well and a high number of overdue subscriptions were received — and we thank these members for their continued support.



While DU spends a reasonable amount of money on advertising, there is no better way of gaining new members than to have existing members encourage their friends to join. In this issue you will find a membership application form. Please pass this on to a friend — or if you are in the Christmas spirit, why not sponsor a friend? We particularly like the approach of our Honorary Member Horrie Sinclair. Horrie tells us that all 40 duck shooters on his property have been 'instructed' to join DU. Great stuff, Horrie.

'THE UNPUBLISHED NEW ZEALAND BIRD PAINTINGS'

Most members will have received an order form direct from the publishers of the book 'George Edward Lodge — The Unpublished New Zealand Bird Paintings'. And we would remind members that the deadline to obtain the special price of \$160 is the 31st December 1982. Orders can be sent direct to the World Wildlife Fund NZ, PO Box 12-200, Wellington North. Your order should state that you are a DU member, as DU will obtain a commission on sales to DU members. Many of you will have seen the advance copies being displayed by some retail outlets and we are sure you will agree that it is an outstanding book.

WATERFOWL BREEDERS LIST

Bill Clinton-Baker tells us that the waterfowl breeders list that DU is currently attempting to compile is growing steadily, but it is obvious that many members have yet to complete the form set out in the last 'Flight'. For those who have sent in a completed form, thanks. For those who have not yet got pen to paper, please complete the form below. If you do not wish to mutilate your copy of 'Flight' please drop Bill a note giving details of your collection, or use a xerox copy of the form.

DONATIONS

We thank the many members who have sent in donations when paying their subscriptions. Several members have made very sizeable donations recently which exceeded \$500, and we would like to record our appreciation to the following: P. Taylor, F. J. Atkins, T. Caithness, C. French, J. Gill, M. Midgley, W. A. Morrison, W. Johnson, D. J. Lee, J. D. Taylor, K. Tilley, J. Tilley, R. E. Pirani, Bank of NSW Waitara, A. Walsh.

NEWS FROM AUSTRALIA

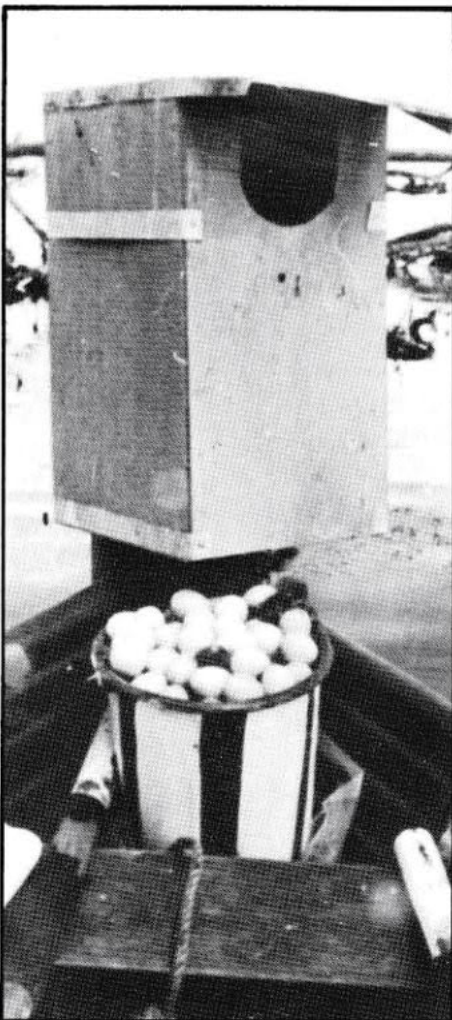
DU Life Member Bill Barrett, who lives in Victoria, recently sent us a most interesting photograph — shown below.

The bucket in the picture contains 720 Chestnut Teal eggs taken from 200 nest boxes at Lake Borrie, Victoria, and laid over a period of only two weeks. A large number of eggs are removed each season for artificial incubation and captive rearing. Bill tells us that between 1963 and 1980 over 30,000 eggs were laid in the nest boxes at Lake Borrie. This is a fantastic production rate and clearly shows an essential need for nest boxes.

As mentioned in earlier editions of 'Flight' Bill Barrett has been largely responsible for Australia's very successful nest box programme, and yet Bill, in the early days, just like DU (NZ), was severely criticised for his efforts. But in spite of the knockers the Australian nest box programme, like DU's, goes from strength to strength. Bill has also recently sent us 20 DU Logo signs made of aluminium and of superb quality. Measuring 250mm x 300mm, with the logo 220mm diameter, the signs will be used at several of our 'Gretel' areas and at our displays. We again thank Bill Barrett for his outstanding contribution.

MEMBERSHIP

Membership continues to rise at a very healthy rate, with the Hamilton Chapter rapidly approaching 200 members — a 100% increase in less than one year.



WATERFOWL BREEDERS LIST

NAME

ADDRESS

SPECIES IN COLLECTION

PHONE No.

DO YOU ALLOW VIEWING BY APPOINTMENT? Yes/No

Please return to Anne & Bill Clinton-Baker,
Tupurupuru, R.D.4., MASTERTON.



LETTERS TO THE EDITOR

Dear Neil

Congratulations on the quality and format of the September issue of 'Flight'. I found the written material easy to read and the illustrations have come up really well. The magazine is certainly a credit to DU. However, as you mentioned in your Editorial, the new format must be an expensive exercise and I was wondering whether DU, with its relatively small membership, could afford, or justify, the costs of such a publication? Wouldn't money be better spent on the various projects?

Don Eley
Lower Hutt

Editor: Thanks for your comments Don and for your interest. I have received many encouraging comments about the new format and I was delighted that Cheryl Pirani phoned me from Auckland immediately she received her copy to offer her compliments on the layout and presentation. I knew then that it *must* be okay. Of course, Brendan Coe of Lithographic Services (who also publish the Rod and Rifle magazine) deserves great credit for his very considerable input into the new 'Flight'. The new format is of the type that DU Directors and Cheryl have been dreaming about for years, as they have always looked on 'Flight' as one of DU's *most important projects*, and an essential means of communicating with members and for promoting DU's thoughts on waterfowl matters. 'Flight' is also read by many who are not members of Ducks Unlimited — university staff and students, Government officials and so on — so presentation is important. The main aim is to develop 'Flight' as a major publication and the new format is the first step in this direction. There is certainly a crying need in New Zealand for a major publication on waterfowl and wildlife management and we are hopeful that the new format will not only encourage members to pay their subscriptions promptly, but will also encourage many more people to join. In respect of costs, the new format is not in fact a great deal more costly than the previous format — particularly with the assistance of Winchester NZ and the Ministry for Recreation and Sport. But I should mention that the amount of money spent by DU on the various projects — as shown in the annual balance sheet — bears little relationship to the actual cost of the projects, when one takes into account the time, travelling costs, personal costs and so on, of the many members involved in DU projects. So there are many important points that must be taken into account when comparing costs.

To sum up I'm sure we can easily justify the new version of 'Flight', but I'll let you know sometime next year about whether we can afford it. At present DU Directors are

committed to producing four issues in the new style, after which the position will be reviewed.

Dear Neil

I read with interest the article on Decoying Ducks in the current issue of 'Flight'. Since you invite contributions, I would be happy to give you my experiences in decoying wildfowl in my native Wales, where for several years I operated a very old decoy at my home of Orierton (detailed in the paperback of that name, available from Penguins in New Zealand). I also caught wildfowl in other (automatic) traps, as set out in my book 'Bird-Ringing' (now out of print). This latter method might be better in New Zealand than decoys, which depend for their large catches on extensive passage of migrant ducks. I also helped Peter Scott set up his Wildfowl Trust, serving on his scientific advisory committee.

All success to Ducks Unlimited.

Ronald M. Lockley

Editor: This slightly abridged letter from well known author Ronald Lockley is indicative of the great knowledge and experience we have amongst DU's membership. Naturally, I have asked Ronald to send me as much material as he can and we are also trying to talk him into addressing us at next year's annual meeting. At the moment, Ronald is very involved with the Tahuna-Torea Nature Reserve on the Tamaki Estuary (where DU has just erected a number of Grey Teal nest boxes) and is Vice-chairman of the Auckland Branch of the Royal Forest and Bird Protection Society — as well as a keen DU member.

Dear Neil

We are delighted to be closely associated with Ducks Unlimited New Zealand and look forward to long and mutually beneficial working relationship.

Your comments in regard to the Winchester image are certainly in line with our company objectives and we thank your fine organisation for the opportunity to advertise in 'Flight'.

We have sent a copy of 'Flight' to our Winchester 'Director of Conservation' in the USA, Ed Kozicky and asked for a supply of material suitable for publication in New Zealand. As soon as a reply is received, we will pass on the information.

Kind regards

Ken Lowry, General Manager
Winchester NZ Ltd

Editor: The Winchester advert is certainly creating considerable interest. It is a fine advert which strongly supports our philosophy that the shooting fraternity can play an important role in wildlife conservation.

THE SPECTACULAR CAROLINA

A NEW NEW ZEALAND SPECIES?

NEIL HAYES

THE NEW ZEALAND SITUATION

The North American Wood Duck (*Aix sponsa*) referred to in New Zealand, and in some areas of the USA as the *Carolina Wood Duck*, has been present in captivity in New Zealand for over one hundred years; having been imported by zoos and acclimatisation societies. But it is only over the last decade that we have seen captive numbers increasing steadily, to a stage where it has been possible for DU members to rear over one hundred Carolina's during the last three breeding seasons.

At the present time the future of the Carolina in New Zealand is uncertain, although it appears likely that the DU Board may possibly approach the Wildlife Service at some stage about an experimental release of Carolina's in to the wild. When this might happen is not yet known.

Most DU members with waterfowl collections now have Carolina's in their collection, and over the next few seasons the New Zealand captive population will most likely reach saturation point. The future of the species will then need careful consideration and many important aspects must be considered before a trial release in to the wild could be contemplated.

THE HISTORY OF THE CAROLINA

Apart from being regarded as the world's most spectacular and attractive species of waterfowl, it is not generally known that the history of the Carolina is an outstanding case in waterfowl conservation, and in the successful application of wildlife management techniques.

Belonging to the family Anatidae (Ducks, Geese and Swans), the sub-family Anatinae (Dabbling ducks) and the tribe Cairinini (Perching ducks), the Carolina is a small bird, the female weighing around 540g and the male 680g and around 45cm long. The male is slightly larger than the female.

The Carolina is a native of North America and in the early 1900s, long before the words 'endangered species' became part of our language, the Carolina was on the verge of extinction, with less than 100 birds surviving in the wild. But through the application of wildlife management techniques, the Carolina population now numbers close to 4 million, and is still increasing.

This population explosion is a success story with few parallels; involving farsighted dedicated people and a very supportive and encouraging American public. About one hundred years ago the Carolina population was in a very healthy state with somewhere around two million birds spread throughout the Eastern states and the West coast of the USA. But by the early 1900s a combination of factors almost wiped out the total population in North America. At one stage it was in fact thought that there were more Carolinas in Belgium than in the USA. The

small captive Belgium population being reared by a few aviculturists from a few pairs imported from the USA. Hunting was thought to be partially responsible for the decline and this was in spite of the fact that as early as 1901 biologists were sounding warnings about the need for strong protective measures. Some Eastern states of the USA passed laws protecting the Carolina, but the shooting continued (as did the shooting of Brown Teal in New Zealand after the species was protected in 1921). The laws in the USA were not strictly enforced and fishermen encouraged the shooting of Carolina's by offering \$4 for the skin of a Carolina male — from which trout flies were made. At this time several commercial organisations were making trout flies from the feathers of Carolina males.

But, as with the Brown Teal in New Zealand, habitat losses in the USA may have been the Carolina's greatest decimator. Logging wiped out vast areas of forest which had provided both nesting and food, and enormous areas of swampland were drained by agricultural interests (we still haven't learnt anything!!) All these factors combined to bring the Carolina to the brink of extinction.

NATIONAL LEGISLATION AND PROTECTION

Finally in 1913 the USA Congress, which had been under pressure for a decade or more, passed the Migratory Bird Law which required rigid enforcement of laws protecting migratory birds. Part of this law also limited waterfowl hunting to 3½ months of the year.



Five years later in 1918 the laws protecting waterfowl were tightened even further and in the USA and in Canada the hunting of the Carolina was totally prohibited. These laws remained in effect until the 1940s when the Carolina's had commenced their *classic* and historical comeback.

NEST BOXES

It was, however, far more than legislation alone that was responsible for the recovery of the Carolina. In wetland habitats in many areas of the USA people erected thousands of nest boxes to replace the felled trees, and these boxes, together with some captive rearing, are responsible for the 4 million population in the USA today.

These nest boxes are generally erected in an identical way to the boxes used in DU's Grey Teal nest box project. That is a box 25cm x 25cm x 45cm deep is positioned over the water and attached to a pole which has been driven in to the bed of the lagoon. Besides providing artificial nest sites for the Carolina's the boxes provide essential protection from a wide range of predators. The Carolina female lays a large clutch of 13-15 white eggs and she incubates these for 30 days.

If properly located, a man made nest box will be readily accepted by Carolinas and it has been found that a female will return to the same box location over as many as nine seasons.

Total figures for nest boxes erected in the USA have not been recorded, but tens of thousands have been erected in many areas. For example, in one area of New York State the Waterfowl Improvement Association has erected over 2000 boxes in recent years.

So, from the brink of extinction to a population of close to 4 million (which allows hunters to crop 1 million per season), it can be clearly seen that with the application of wildlife management techniques and outstanding human dedication *miracles* can be achieved.

Given the opportunity, DU Directors see a great future for the Carolina in New Zealand. Indications are that the species would not conflict with any existing New Zealand waterfowl and as the Carolina is not a 'crop species' would not cause any problems for our farming community.

We will keep you closely informed about the Carolina in New Zealand.



"There are many species threatened, all in need of someone concerned enough to fight for their needs. The fact that a living being can vanish from this earth solely because of man's improvidence and neglect is appalling, and the utter finality of it touches the consciousness of far too few."

George Schaller
Noted Zoologist

WE SHARE GEORGE SCHALLER'S CONCERN



**NEW ZEALAND
WILDLIFE SERVICE**

Department of Internal Affairs,
Private Bag, Wellington.

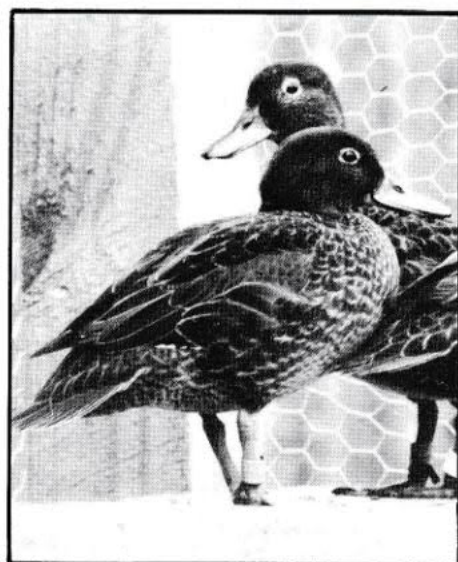
SHOW YOUR CONCERN — support **WANTED ALIVE**

NEW ZEALAND WATERFOWL

FACTS AND FIGURES

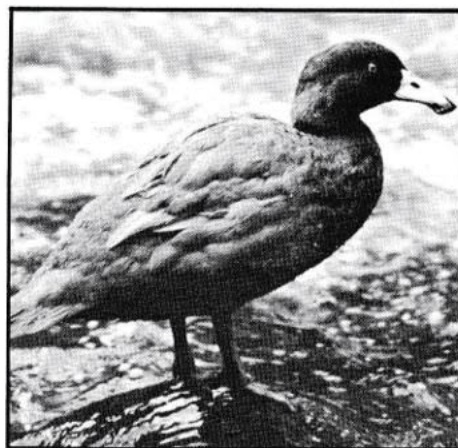
NEW ZEALAND BROWN TEAL (an endemic species)

Once widespread throughout New Zealand and a heavily shot species in the early 1900s, the Brown Teal failed to adapt to the drastic drainage and land development which has taken place during the last 90 years. The species now numbers only about 1000, of which about 600 reside on Great Barrier Island and about 400 in North Auckland. Numbers in the wild are still declining but over the next few years, Ducks Unlimited hopes to reverse this trend by releasing large numbers of captive reared birds into the wild. The Brown Teal adapts extremely well to captivity and around 100 birds are held in captivity in New Zealand. Ducks Unlimited members have now reared over 300 Brown Teal in captivity — 180 of these being reared in the last two seasons. The species is totally protected.



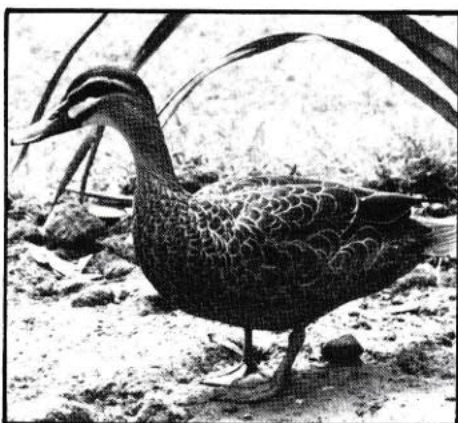
BLUE DUCK (an endemic species)

The Blue Duck is another species whose numbers have been drastically reduced by land modification and habitat destruction. Currently numbering about 4000 in the wild, the Blue Duck will be seriously endangered by the many new hydro electric power dams that are to be erected in the next 20 years. This species probably gives DU more concern than any other as the captive rearing programme is very much in its infancy, and it will be many years before it gets into full swing, during which time the hydro dam schemes will be started. The future for the Blue Duck does not look good — the species is totally protected.



GREY DUCK (a native species, also in Australia)

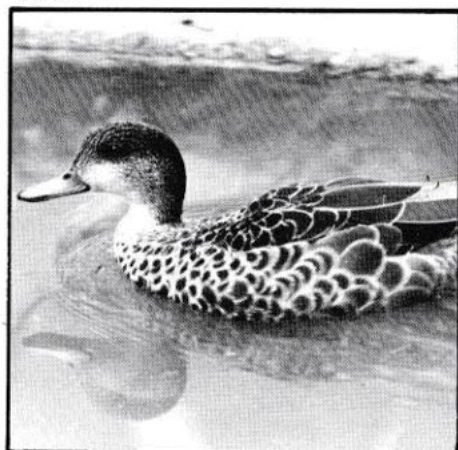
Land development and the drainage of wild waterfowl habitat has seriously depleted New Zealand's Grey Duck population. Unlike the mallard, the grey duck has generally been unable to adapt to artificial and developed habitat. However, there are still sufficient wild places left to maintain Grey Duck populations for many years and the species is in no danger, with a population of possibly around one million. There are large numbers of Grey Duck in captivity and captive production is high. Hybridisation with Mallards is not a serious problem in the wild and occurs rarely. The Grey Duck is still an important part of the waterfowl hunter's bag.



GREY TEAL (self introduced)

The Grey Teal introduced itself into New Zealand about the middle of last century but its numbers were very slow to increase. However, since the advent of DU's Opera-

tion 'Gretel' project, which aims to erect 3000 Grey Teal nest boxes, the numbers of Grey Teal seem to be on the move. Recent reports indicate a total population of around 40,000. Grey Teal adapt readily to captivity but surprisingly do not breed well in captivity. It is very much a flock bird and the secret of captive breeding may be in having a large captive flock. The Grey Teal is totally protected.



NEW ZEALAND SCAUP (an endemic species)

This is one species which has benefited from the erection of hydro-electric dams. Its numbers were probably as low as 2000 at one period, after once being widespread throughout New Zealand, but the current population could be as high as 5000 and rising. The scaup adapts well to captivity and breeds readily in relatively small aviaries. Most DU members with waterfowl collections are now producing good numbers of scaup each season. The species is totally protected.



CANADA GOOSE (introduced)

This species, which is North America's most respected, is unfortunately New Zealand's most maligned and abused species of wildlife. Ducks Unlimited fails to appreciate the reasons why this species has been annually massacred in the thousands; not by shooting in a sporting manner but by slaughtering goslings, the destruction of eggs, and slaughter of adults in the moult etc etc. Nowhere in the world has any game bird been subjected to such abuse. As a consequence, Canada Goose numbers are now at an all time low of about 12,000. The time is long overdue for some constructive wildlife management techniques to be applied; such as compensating farmers for crop damage, purchase of problem areas, planting of decoy crops, hunter education programmes, promotion of the Canada goose as an important game bird, and so on. Tremendous tourist potential also exists for the sporting hunting of the species. On a happier note, DU's Operation 'Branta', which aims to establish the Canada Goose in the North Island, has been progressing extremely well and there are now around 600 geese resident in the North Island where they are currently protected. Canadas are slow breeders in captivity and 8-12 birds are needed to encourage the birds to breed.



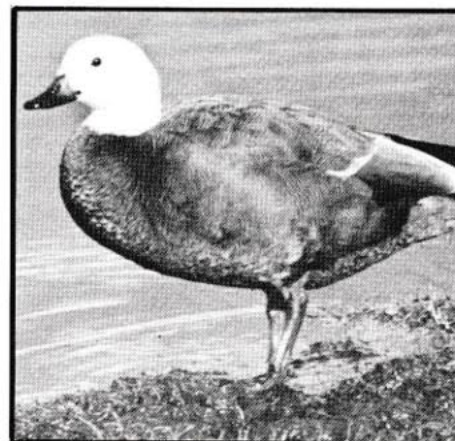
BLACK SWAN (introduced)

Originally introduced for ornamental purposes, the Black Swan rapidly filled an important ecological niche and soon became an important game species. Unfortunately, the 'Wahine Storm' in 1968 reduced the large Lake Ellesmere population by about 50,000 birds and the New Zealand population has taken a long time to recover from this blow. However, national numbers are steadily increasing and the total population at present is around 50,000. Again, the Black Swan is very much a flock bird and several pairs are needed to encourage captive breeding.



PARADISE SHELDUCK (endemic)

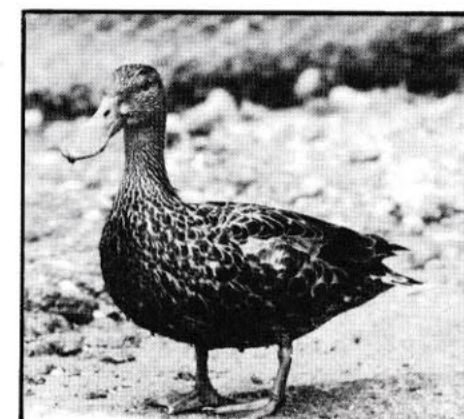
The Paradise Shelduck is the species which has benefited most from land development and it is gradually becoming widespread throughout New Zealand. Total numbers are approximately 150,000. It is, however, a species which requires very careful management as most females do not breed until three years of age, and its numbers can be rapidly reduced through excessive shooting. It is a game species in many districts. The Paradise adapts well to a large scale captive environment and good pairs breed readily.



NEW ZEALAND SHOVELER (endemic)

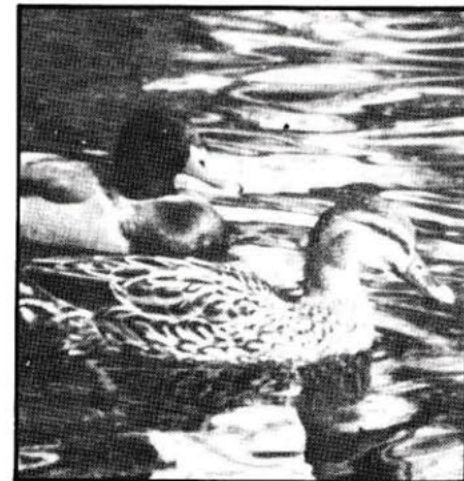
The Shoveler is widespread throughout the country and is on the game bird list in most districts. Although less is known about the New Zealand Shoveler than any other species in the country, it does seem to have maintained a reasonably stable population of around 150,000 over many years. It is of course a very fast flier and a very difficult target for the hunter and this aspect has un-

doubtedly helped to maintain overall numbers. It adapts well to captivity but is without doubt the poorest breeder in a captive situation. Again, it is very much a flock bird and the only breeders who have had any degree of success have been those with large open ponds and large numbers of Shoveler.



THE MALLARD (introduced)

There is little doubt that New Zealand's overall waterfowl scene would be relatively dismal without the Mallard, which has now adapted to all forms of open waterway. In 50 years the Mallard has spread to just about every corner of the country and its numbers have increased to around five million. Naturally, it is now the major game species. Unfortunately, its numbers have presented some farmers with a crop protection problem and in some areas numbers are reported to be in 'plague' proportions. However, with careful management, DU sees no reason why the Mallard should ever become a 'problem' bird.



WET FEATHER

A PROBLEM IN WATERFOWL AVICULTURE

Waterfowl aviculturists are fortunate that providing they follow good avicultural management techniques, waterfowl are generally free from ailment and disease. Sometimes, however, a problem does arise and one such problem is 'Wet Feather'. In the following article, Mike Lubbock, who until recently was Assistant Director of the Wildfowl Trust and is now working with waterfowl in the USA, outlines the reasons for this ailment and provides details about the appropriate cure. We are indebted to the Wildfowl Trust for permission to publish this article.

MIKE LUBBOCK

One of the most common ailments met with by members who have their own collection of captive waterfowl, is a complaint which we refer to as 'wet feather'. In this state, adult birds become bedraggled, their feathers are dry and dirty and their normally immaculately groomed plumage disappears. Birds that normally enjoy their pond will stay well away from it and will only enter water if forced to do so to feed or by fright.

Should they have to enter water, the birds will be seen to be most uncomfortable, and it will be obvious that they are paddling ferociously in an effort to raise their entire body clear of the surface. The reason for this will be fairly obvious on close inspection; the poor condition of the outer feathers has allowed water to seep through to the inner down feathers which act rather like a sponge and absorb water until the bird's natural down insulation becomes waterlogged.

This extra weight of water makes it difficult for the bird to climb out of the pond, and, in extreme cases, and if completely saturated, the bird can, and sometimes does, sink. Even if the bird manages to climb on to the bank, if the weather is cold it may succumb to pneumonia since it is virtually devoid of its natural insulation.

Old, and ailing birds, that become too tired or too ill to attend to their plumage, lose their water repellency and often become wet feathered. A perfectly plump and healthy bird that develops wet feather, will often be suffering from feather mite. These mites eat their way into the shafts of the feathers and not only harm the feathers, but give discomfort to the bird which, in consequence, pecks continually at the area of irritation and soreness results. Plumage infested with feather mite soon becomes wet feathered.

A commercial mite powder is effective against feather mite if rubbed into the infected area. As long as the attack does not envelop the bird's entire plumage and is only in contained areas it is, for a rapid recovery, advisable to pull out any of the infected feathers. This should encourage new feathers to grow in about three weeks to a month; however, it must be stressed that if the weather is very cold and too many feathers are removed, the discomfort that the bird is experiencing will be increased and the complications of pneumonia may occur.

Birds that come into contact with oil, will undoubtedly lose their water repellency. Even very slight oiling on the water, e.g. petrol from an outboard motor or a lawnmower working on the bank, can induce wet feather. Badly oiled birds are difficult to treat, and expert advice should be obtained before washing a bird in detergent.

Birds imported from the wild and placed in a strange pen, may often become wet feathered through stress. Usually they overcome this problem on their own, in time.

A further cause of wet feather can be the result of a blocked preen gland; a blocked gland prevents the bird extracting the secretion to place on the feathers whilst preening. It is advisable to ask your local vet to inspect the gland, which is situated just on top of the Pygo Style (Parson's Nose). If the small feathers surrounding the gland are moist and impregnated with a yellow, waxy substance, then the gland is working, but, if the area is dry, it is likely to be clogged and will need clearing.

Bad husbandry is the principal cause of wet feather among young birds and is the result when young birds have been allowed to sit in their feeding pans, become wet from the water, and allowed to sit in their droppings. In such circumstances the down feathers clog with dirty food and any water repellency they had when hatched is lost. Very young birds have not yet learnt to be proficient at preening but when brooded by their real parents, a certain amount of preening secretion rubs from the parents' feathers on to the down of the young. When artificially raised they are therefore deprived of this waterproofing.

It follows that ducklings taken from their natural parents, or those raised in coops or brooders, placed in a strange pen with water, will immediately become waterlogged and will suffer the same fate as a waterlogged adult, unless dried off immediately and given heat.

When the preening stage has been reached young birds that are suffering from wet feather and have been artificially reared should be allowed to get wet, but on a suitably hot day, and in a pool from which they can climb out unaided, to preen in the sunshine. Provided with these facilities, they will soon remove any clogging dirt from their

feathers and become totally waterproofed. However, if they are too wet, they should be rubbed down with a piece of dry cloth, then allowed to dry off in the sun, but away from water. They should then start to preen, and if allowed in the water about three times a day when the weather is warm, will become waterproofed within a period of two or three days.



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3. Fulfillment of your conservation trust preserving waterfowl resources for future generations.

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THE BROWN DUCK

(*Elasmonetta chlorotis*)

Reprinted below is an interesting article on the Brown Teal (*Anas aucklandica chlorotis*) — with the above title — taken from 'Forest And Bird' August 1945. The scientific name in the title is one of at least four scientific names that have been used this century. The scientific name that followed *Elasmonetta chlorotis* was *Anas castanea chlorotis*, which was an attempt to relate the Brown Teal to the Chestnut Teal (*Anas castanea*). But anyone who has studied the behaviour of Chestnut Teal and the behaviour of Brown Teal agree that the two species show no indication of being related in any way. The clutch size of 6 to 10 mentioned below is also interesting, as so far in operation 'Pateke' 5 to 7 would be the norm for a clutch of Brown Teal eggs. We are indebted to the Royal Forest and Bird Protection Society for their kind permission to reprint this article.

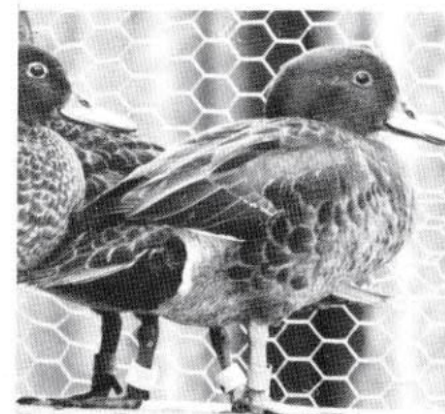
WESLEY SANDERSON
Whangarei

The brown duck, or as it is better known in the north, the 'brown teal' or 'teal', is a bird found only in New Zealand. It is chiefly found on narrow tidal creeks, raupo swamps and pools surrounded by thick vegetation and on the small level stretches of streams in the bush. The two great factors that go to make up the permanent habitat of the brown duck are shade and deep running pools. In the bush, shade is produced yet openness prevails. Here brown ducks are found resting by day on trees fallen over the stream or under bunches of carex, or astelias, fallen from their lofty perches.

In tea-tree clad gullies, brown ducks are found in thick bunches of rushes which border streamlets. They are widely distributed throughout swamps, but whatever the habitat one common feature is seen: a deep partly or totally shaded pool of running water. It is only rarely one finds a brown duck away from a pool.

Small hard seeds, such as those of grasses and plantain, water weeds, and insects such as beetles form the food of this duck. On coastal areas and mangrove swamps crabs and probably other marine animals are taken.

These birds are generally nocturnal and by day are either hidden away in the shade or



are moving furtively about in rushes or raupo, which their plumage matches well in colour. If disturbed by day when feeding in such localities the brown duck crouches quite still and so resembles a piece of wood that it is usually passed by unnoticed.

This duck is a strong flier and as long as there is suitable cover, the distance from food is not of great importance, except when the birds are nesting, when the nesting site and food supply must be together. Food is abundant in most localities; it is the necessary cover that is lacking. When the ideal habitat is provided artificially by dams and by allowing cover to grow about them brown duck will speedily avail themselves of it. The female makes all the noises uttered by domesticated ducks, but the quack is more harsh and is repeated very quickly and carries a great distance. The drake has a plaintive whistle uttered with the throaty wheeze one connects with people who have a severe cold.

The nesting season extends from early June to probably as late as February. Nests are generally made under cover within a few yards of water, and are structures with the outside made of raupo, astelia or carex or the decaying leaves of bush trees. Inside this is a loose layer of down about an inch thick. Six to ten eggs of the brown colour common to the eggs of some species of hens are laid and are almost covered in the loose down which lines the nest. The brown duck is a very close sitter.

Formerly this bird was shot a great deal and as it frequently mingles in flocks of grey duck it is still killed in localities where they still exist. They are also captured by dogs; for this bird rarely flies if in danger when under cover during the day. If disturbed in open creeks it flies readily but frequently returns after travelling several miles in a large circle. Shooters avail themselves of this unfortunate habit.

The brown duck is absolutely protected by law, yet it is still declining in numbers. The reasons for this are the lack of an efficient system of wildlife management, insufficient wardening, the destruction of the bird's habitat by fire and flood, and the acclimatisation of such exotic predators as stoats, weasels, polecats, ferrets, etc.

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GRETEL

WAIKATO

The Hamilton Chapter has sent in several reports, all of which indicate a very successful breeding season for Grey Teal in the Waikato. The Mountley site near Ngaruawahia has again proved very successful with over 80% usage of the 35 boxes. At Mountley, DU has erected an impressive looking sign — see photo by Murray Dench below. This sign can be clearly seen from State Highway No 1 and has created considerable interest. Our sincere thanks to Peter Robertson, who owns the property at Mountley, for allowing us to use the area and to erect the sign.

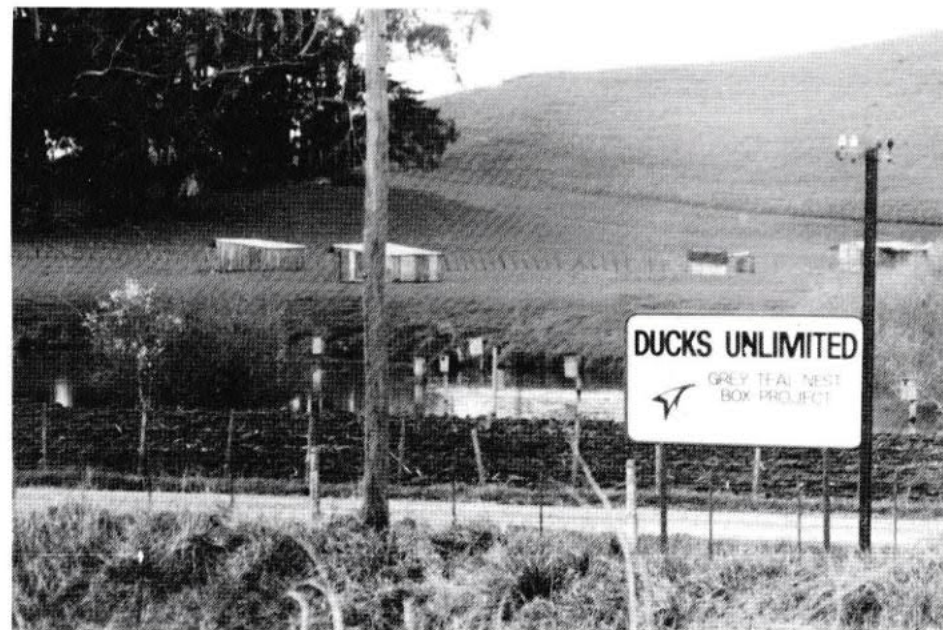
In the not too distant future the Waikato Chapter Committee will charter a small plane to take aerial photographs of all DU 'Gretel' sites in the Waikato, and proposed sites also. It is the Chapter's aim to erect about 50 boxes per year in the Waikato.

BARTON'S LAGOON — WAIRARAPA

Once again the Grey Teal at Barton's have been very active, with nearly 70% of the boxes being used. This is the fifth season at Barton's and our records show that over 500 Grey Teal eggs have now hatched at Barton's. The tanalised pine boxes are standing up extremely well and to date, very little maintenance work has been needed.

KOURARAU DAM — MASTERTON

Looks like another disappointing season at Kourarau. Boxes have now been at Kourarau for four seasons; Grey Teal present, but so far no boxes have been used. Public usage of Kourarau may be a factor here, as Bill Clinton-Baker, who farms very close to the dam, has had wild Grey Teal use the boxes on his own dam. However, according to information from the USA, some areas where boxes have been erected for the Carolina have not seen any usage for many years, then all of a sudden away they go. So we have not yet given up hope.



POKENO — SOUTH AUCKLAND

The 110 boxes at Tony Flexman's property, near Pokeno, were inspected and prepared in early July. Because of the proven success of this site, no egg counts have been taken since the 1979-80 season when Ian McFadden of the Wildlife Service was studying the nest box usage. Up to and including the 1979-80 season, 1628 Grey Teal eggs had hatched at Pokeno. So, if we take the average count over the last two recorded seasons, which was 778 per season, we can safely assume that well over 3000 Grey Teal have hatched at Pokeno, in only eight seasons. (Really only six seasons as the first two were used up experimenting with a wide range of box designs.) This is a fantastic achievement by DU — and by the Grey Teal, who completely ignored the person who once said that "These birds will never use these boxes."!

In the near future, we hope to receive a copy of the scientific paper on Ian McFadden's Grey Teal study. But as we have indicated to the Wildlife Service, a two season study was far too short to gain any really meaningful data. But the good news from the Wildlife Service is that a Grey Teal population census will commence some time next year. It will certainly be interesting to see if the census comes anywhere close to DU's estimate of 40,000 Grey Teal in New Zealand.

WOODEND

Another blank year seems likely at Woodend, as Peter McLeod reports that the lagoon was very close to bone dry during September and October.

FUTURE POLICY ON 'GRETEL'

While DU fully intends to pursue its involvement in Gretel, Directors' thoughts are that the time is rapidly approaching for the acclimatisation societies to take an active interest in boosting the Grey Teal population, and with this in mind a circular letter will shortly be sent to all acclimatisation society

Presidents. This letter will attempt to encourage each society to institute its own nest box programme. We feel that there are few areas in New Zealand that are outside the scope of a nest box programme for Grey Teal. (More on this in the next issue).

WHIO

DU member Barry Rowe at Otorohanga has a clutch of Blue Duck eggs being incubated and we are hoping that we may see some Blue Ducks reared in captivity this season. But generally, there is a certain amount of gloom and despondency about this project. Without far more Blue Ducks in captivity, there is virtually no likelihood of this project ever getting off the ground. If it fails, it is very likely that the Blue Duck will eventually cease to exist, as all indications are that the species is declining rapidly in the wild. We, and various other organisations, have already shown the value of the captive propagation of rare waterfowl and it would surely be far better to have a thousand captive Blue Ducks than no Blue Ducks at all!!

BRANTA

We have quite a long list of members wishing to obtain Canada Geese and we are again aiming to transfer a good number of geese from the South Island. DU Director Jim Campbell of Masterton, reports that his geese are breeding well and he expects to break all previous records for numbers reared. He has very generously offered to transfer some of his surplus geese to other DU members. (Further comments about Canada Geese in New Zealand can be read elsewhere in this issue.)

PATEKE

MEMBERS' INVOLVEMENT

For the 1982-83 breeding season the following members have Brown Teal in captivity: D. Brenkley (Masterton), W. Clinton-Baker (Masterton), M. Dench (Hamilton), R. Dench (Hamilton), R. Denny (Masterton), J. Gill (Wellington), J. Goodwin (L. Tarawera), J. Glover (Wellington), N. Hayes (Wellington), P. McKenzie (Waikanae), D. McNeil (Matamata), R. Munro (Invercargill), L. Piper (Christchurch), M. Powell (Hamilton), I. Pirani (Rotorua), J. Parris (Motueka), B. Rowe (Hamilton), A. Wright (Te Anau), W. Wright (Waikanae), Katikati Bird Gardens (Katikati), Isaac Wildlife Trust

(Christchurch), Wellington Zoological Gardens (Wellington) — totalling 22 members and 40 pairs of Brown Teal. We thank these members for their support and dedication.

The 'Pateke' programme actually calls for 50 pairs of Brown Teal to be held by members, so we still have quite a way to go. If you are interested in joining the project, please write to Neil Hayes for details. If you also send him \$6 he will send you a copy of DU's booklet on the Brown Teal project. This booklet tells you all you need to know about the aviculture of Brown Teal.

DU is certainly very keen to see the numbers of Brown Teal held by members reach the figure of 50 pairs as soon as possible. And even when we have reached the target of 50 pairs we can really see no reason to stop there, and it would be nice to eventually see 100 pairs held by members — imagine the production that would be possible.

RELEASE SITES

The matter of selecting release areas for our Brown Teal is still subject to discussions with the Wildlife Service. Now that DU has proved, quite convincingly, that large numbers of Brown Teal can be reared in captivity (180 over the last two seasons; equivalent to 10% of the world population being reared each season), it is obvious that some very serious thought must now be given to the selection of release sites.

The reasons for the decline of Brown Teal in the wild are not clear cut, but the main reasons are thought to be:

- a) The destruction of habitat.
- b) Introduced predators.
- c) Excessive shooting long after Brown Teal became totally protected in 1921, and
- d) The fact that the Brown Teal female only lays a small clutch of 5-7 eggs, from which she rears only 1-2 birds in the wild; 4-5 in captivity. So with the three other factors to contend with, the species in the wild has great difficulty replacing itself, let alone expanding the population.

So we have some serious obstacles to overcome before we start to make any real progress in our re-establishment side of operation 'Pateke'. (More on this later).

1982-83 BREEDING SEASON PROGRESS

The new breeding season is well under way and indications are that it will be a good season. In early November over 40 birds were

being reared and many more eggs were being incubated. Hopes are high for a record season. To set a new record we will need to beat the 101 reared during the 1980-81 breeding season. Ron Munro in Invercargill reported that a female of one of the three pairs sent to him had laid her first clutch of eggs only three weeks after being placed in the new aviary.

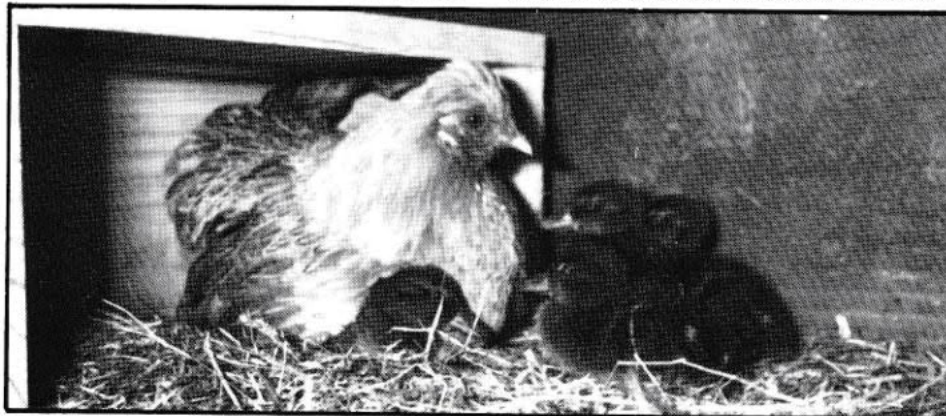
SHOOTING OF BROWN TEAL

As mentioned in the Annual Report, DU Directors were concerned to hear that a number of Brown Teal had been shot at Puke Puke Lagoon during the duck season; although it was found that only three accidental shootings could be confirmed. Anyhow, at the invitation of Steve McGill of the Wildlife Service, Neil Hayes took the opportunity to talk to thirty Puke Puke duck hunters on October 16th at a meeting held near Foxton.

After an outline of operation 'Pateke' had been given, an interesting general discussion took place. Showing an impressive and creditable approach, the hunters unanimously agreed to limit their hours of hunting, by commencing at 7am instead of 6.30 and finishing at 6pm instead of 6.30. This move should make identification much easier and should reduce the danger to Brown Teal, and it could perhaps be an example to other areas of New Zealand where Brown Teal are being released. We certainly thank the Puke Puke hunters for their support and also Steve McGill for the opportunity to talk to the gathering. There is no doubt that with the support of hunters, we could easily eliminate one of the four factors that are thought to have been originally responsible for Brown Teal's decline.

BROWN TEAL ON MATAKANA ISLAND

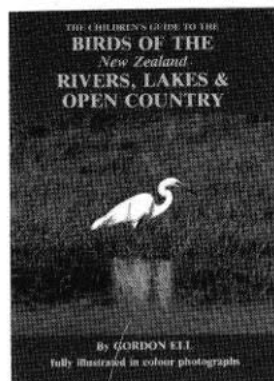
Brian Chudleigh, our good keen man in Katikati, reports on 26 Sept.: "Yesterday I did a survey of wildlife on Matakana Island with the Wildlife Service. With Paddy Latham, another ornithologist, I covered quite a lot of the ocean beach in search of our main interest, New Zealand Banded Dotterels and variable oyster catchers. Alan Saunders and another wildlife officer covered many of the lagoons and swampy areas and they had the good fortune to sight one Brown Teal on the No 2 pond along with a number of Scaup." We thank Brian for this report as it clearly indicates that our captive reared birds *can* survive in the wild.



A delightful shot from Murray Dench, showing his first Brown Teal of the season.

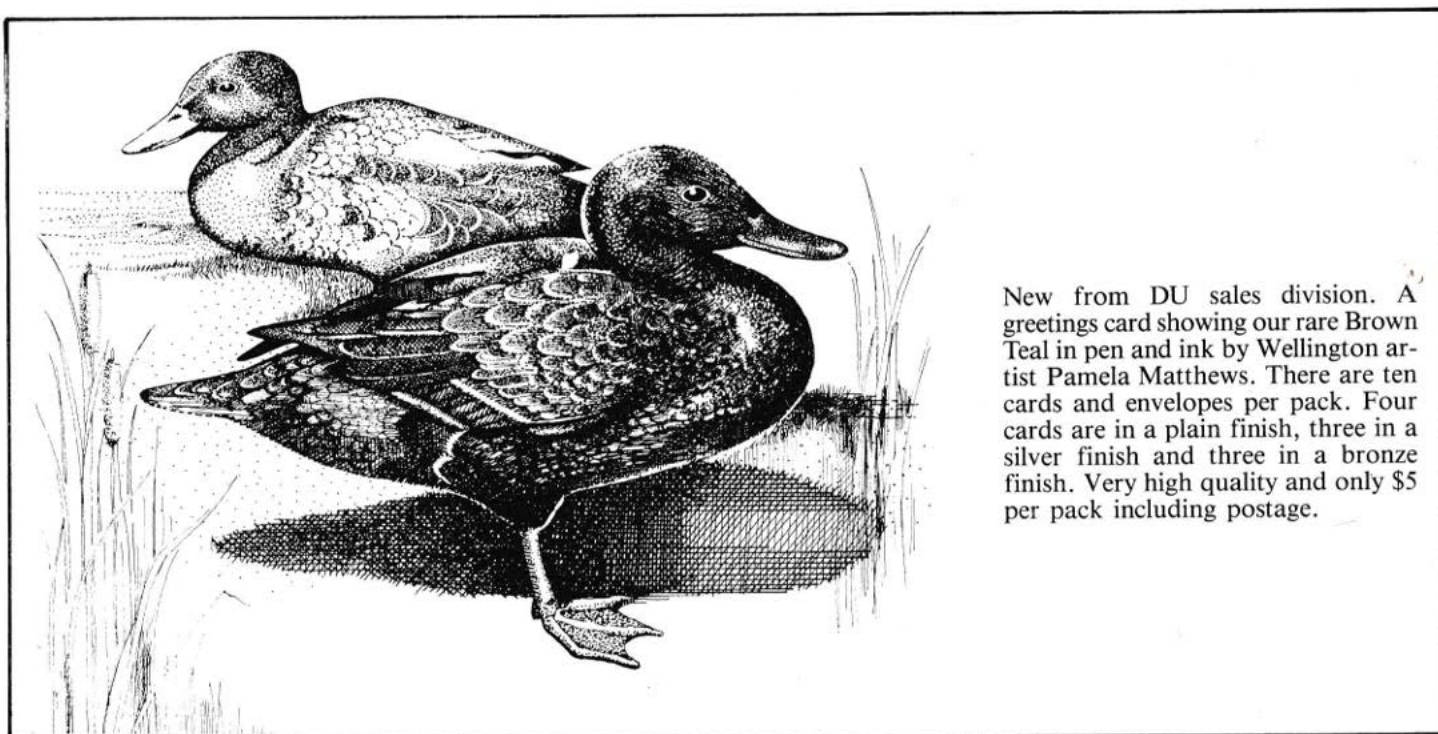
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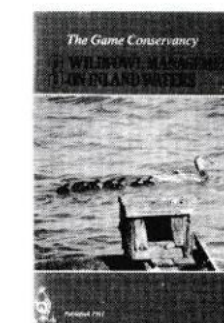
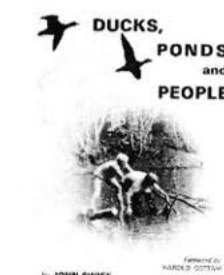
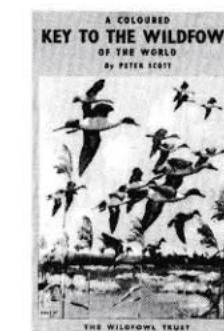
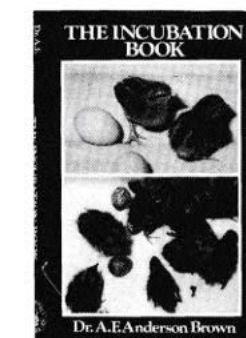
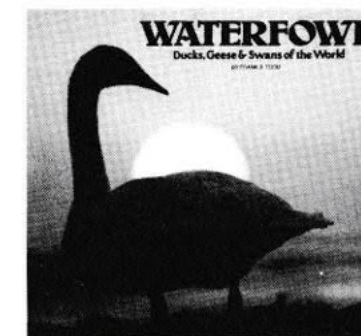
by Sir Peter Scott. 96 pages with coloured plates and notes detailing the status of the waterfowl of the world. \$10.00

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