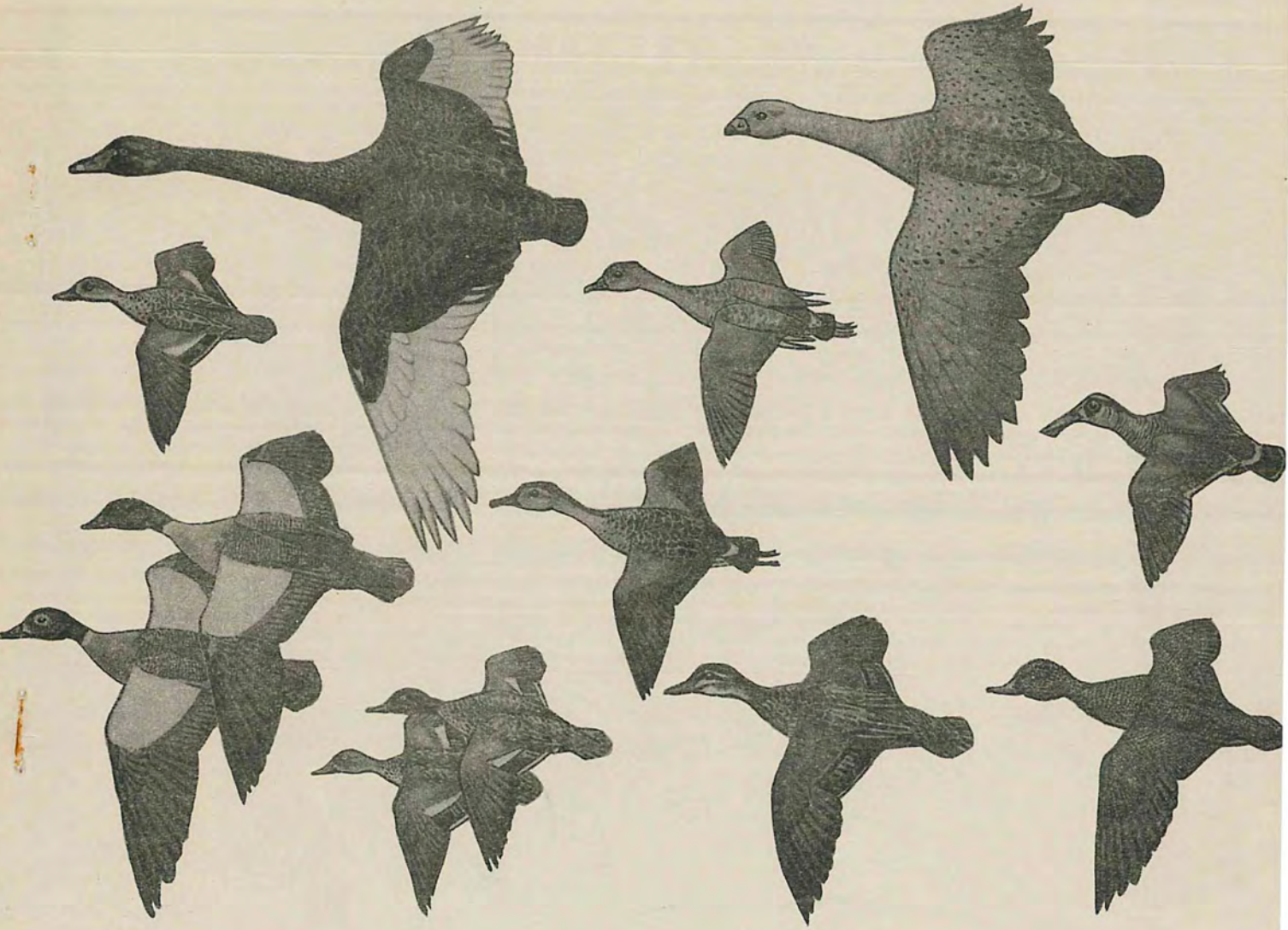
A Game Management Plan For Western Australia



A SUGGESTED GAME MANAGEMENT PLAN FOR WESTERN AUSTRALIA.

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VICTORIA

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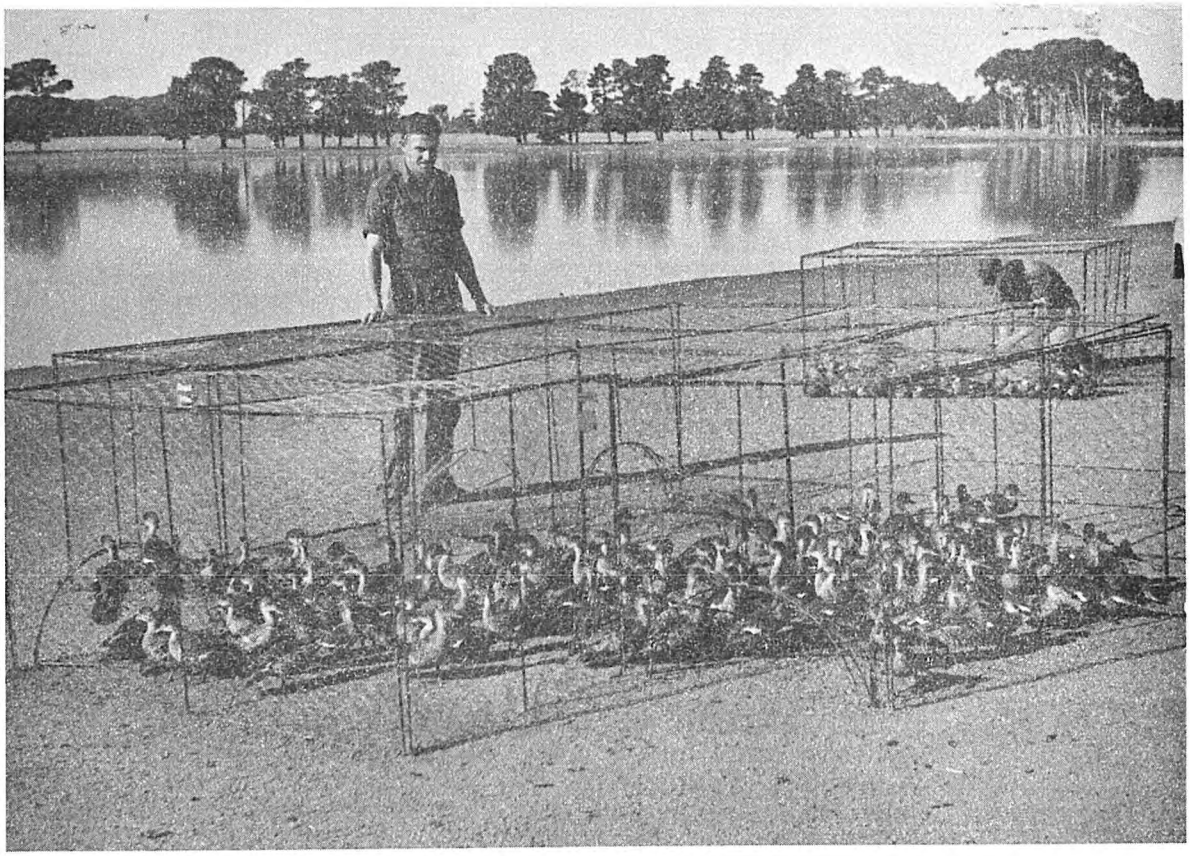
VICTORIA



The trapping and banding of wild duck is an important function of a game management plan. Details of migration, population changes and measures of shooting pressure can be studied and the findings applied on wildlife reserves regulations to control hunting and for the improvement of waterfowl habitat throughout the State.

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1. INTRODUCTION

At the request of the Fauna Protection Advisory Committee and the Department of Fisheries and Fauna of Western Australia the author conferred with the Committee and the Department on the development of a game management programme for that State. A meeting with the Committee took place on 17th December, 1965 and the proceedings of the meeting contain an account of the discussions. Further detailed discussions were held and field trips attended with interested individuals and officers of the Department over a period of approximately twelve days.

Appreciation is expressed to the Committee and to the Director of the Department for the invitation, and to the Director of the Fisheries and Wildlife of Victoria for permission to visit Western Australia.

Reference is made through the text to representative pamphlets illustrating similar aspects of the plan, prepared by the Game Management Section of the Fisheries and Wildlife Department of Victoria and identified by a number.

2. PRELIMINARY CONSIDERATIONS

This report attempts to explain the central position of game management within a State wildlife conservation programme.

In Australia over at least the past fifty years the somewhat bewildering array of opportunities for projects in wildlife conservation contrasts strongly with the disappointingly poor results of most endeavours.

We must look deeper than we have done in the past, for the cause of this. As a background theme inherent in the suggestions of this paper, it is believed that the situation is caused by the separation of the wildlife from the normal lives and the commonly accepted aspirations of the people, acting as a community.

Game management is an essential feature of a wildlife conservation programme attuned to society's needs.

Work on game forms the solid basis from which other less economic, but just as essential, studies or projects can develop.

Properly designed game work leads to a total wildlife conservation programme, concerned with the community's needs, not just a section of the public with specialised demands. In this way it receives support from the public necessary to the whole programme. This is not to say that non-game work cannot develop the same broad approach and consequent support. It is just that it has not done so in Australia and probably never will.

Failure to recognise this important principle often leads to attempts being made to initiate narrowly-based programmes having limited and specialised contact with the general public. These are rapidly converted into the less complicated but more academically acceptable research projects, or worse, stagnate through lack of support from the people. This type of wildlife conservation programme fails "to take" because it does not contain the essential core of practical wildlife management acceptable to public thinking, and hence to the Government, in terms of what it needs, what it understands and what it will pay for.

These considerations are important for several reasons. It must be recognised as a major lesson from Australia's unhappy experience with wildlife conservation in the past, that wildlife will not be preserved unless the people participate, as a society. Wildlife ranges too far and wide for individual ownership of the land to recognise its responsibility as in parts of Europe. In addition our history of land tenure sets as an ideal the sharing of the available game. Society's interaction with the land, rather than directly with the wildlife, is the major force which has acted against wildlife. So it is through society that our counter measures for conservation of wildlife must act. Man's use of land, regarded as a social habit, cannot be changed nor the decline of wildlife reversed without the participation of the people themselves. Neither Governments nor the natural history societies can force the people into conservation. This can only come through a study of ecology, an understanding of society's behaviour, and consequently the evolution of a new ethic or attitude toward the land and its products. When wildlife conservation is based on the people's real needs, within a whole and healthy community, finance and staff will be made available. In Australia under existing conditions game management has the greatest chance of success in this regard because, through its very nature, it must take into account the needs of the people and wildlife, rather than either one to the exclusion of the other.

That we live in a technological age is a truism repeated so often, we are in danger of ignoring it. Applied to wildlife conservation, it surely implies that unless technical facilities are used in the race to preserve our dwindling wildlife stocks,

we are hopelessly outclassed by the massive technically organised forces acting against wildlife in Australia today. The age when wildlife conservation can be operated only as a hobby, or with the part time services of honorary volunteers, is past. The price society will pay for failure in this work is too great to chance such dilettante methods. Only full time properly trained staff can keep up with today's conditions. On the other hand specialist advisors in other disciplines are essential but in many States of Australia they are taking the place of, instead of advising a full time professional staff, adequate for today's methods and demands.

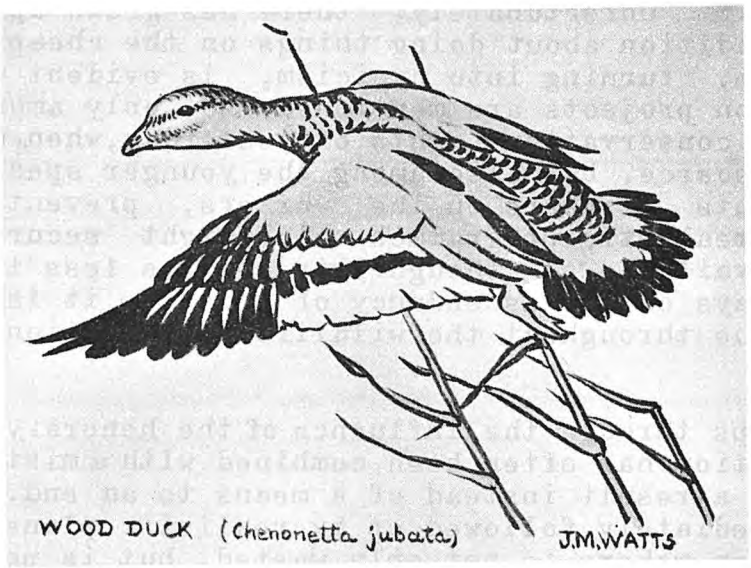
More than money, the limiting factor in wildlife conservation has often been an attitude of mind governing the approach to the job. Unfortunately, there has grown up what might be termed a tradition about doing things on the cheap for wildlife. A pessimism, turning into cynicism, is evident when wildlife conservation projects are mentioned, not only amongst those who fought the conservation fights of yesterday, when money in Australia was scarce, but also among the younger specialists. This attitude puts blinkers on the workers, preventing them from proposing realistic programmes which might secure what finance could be available. Though this applies less to research work in these days of the ascendancy of Science, it is still unfortunately true throughout the wildlife conservation field in Australia.

Perhaps through the influence of the honorary organisations this tradition has often been combined with a mistaken belief in protest as a result instead of a means to an end. Protest which is not immediately followed up by realistic plans acceptable to the decision makers, is not only wasted, but is positively harmful to future attempts. Having made a good protest sometimes seems to replace the need for definite practical and acceptable alternatives to whatever is harmful to wildlife. The alternatives can only come from soundly based research <u>and</u> technical facilities.

Though we might sympathise with the causes of the low-cost and protest tradition, this should not be allowed to obscure the real difficulty, that is, the dependance of the survival of wildlife on society's attitudes and the need to know the requirements of both before it is too late.

Any optimism about the future of wildlife generated by the impact of the vast open spaces of Western Australia would appear to me to be false. There are far too many species with greatly differing needs for all to be satisfied by the type of unused land which will be left in the State after agriculture takes its

pick. There has already been too great a disappearance of wildlife from the developed lands, as in all other parts of Australia, for us to conclude that the process will not accelerate. There are too many indications that extensive new developments, having the required finance and new techniques, will develop areas hither-to considered remote and safe. Considered at its best, the open spaces of Western Australia mean a little breathing space for some species and for some habitats before the losses are critical. At the worst it means that the adverse changes and losses of wildlife are slower, insidious and all too easily accepted by the people without complain or remedy.



3. WHAT IS GAME MANAGEMENT

As first defined by Leopold in 1933, game management is the practice of making land produce sustained annual crops of wild game for recreational use. Game includes any wild animal sought for its fur, flesh or trophy value and so defined by law.

There are many implications in this apparently simple statement, but for our present purposes it is sufficient to draw attention to the similarity of game management to forestry and agriculture. In common with these sciences, game management requires the utilization of the forces of weather, soil and human nature, as well as knowledge of the parent discipline, in our case zoology.

Game management implies much more than the utilization of natural processes to produce a shootable surplus of live animals to serve as targets. It implies a kind and a quality of wild game, living in surroundings and available under conditions that make hunting a stimulating experience, physically, intellectually and aesthetically.

Incidently, the objective of a State conservation programme for non-game wildlife can be stated in the same way and thus is interchangeable with, and intimately bound up with game work at every step. It aims to retain for all people the opportunity to see, admire and enjoy, and the challenge to understand, the varied forms of wildlife indigenous to the area. It implies not only that these forms be kept in existence, but also that the greatest possible variety exists in each community.

Game management in one or more of its several aspects began in Australia early in colonial settlement. Controls exercised to make land produce a sustained annual crop of game appear to follow a pattern.

(a) Hunting

(b) Predator control

(c) Liberation of introduced or native game

(d) Reservation of land

(e) Habitat improvement

Determination of the pattern is more than an interesting historical exercise. With a knowledge of what game management was, as an activity of people in a particular region, there is more hope of understanding its future. The history of wildlife and its environment, is often as important as its present day condition for understanding the ways in which game management can be established as a purposeful practice and objective of society.

This is not the place to trace the development of the stages in Western Australia. This work would actually form an important part of the research programme. It is called a Game Survey of the State. We can do no more than note the main events by inference with the process elsewhere.

Because of the early conditions of existence of the settlers, more importance was then attached to game animals than to other wildlife. Game had desirable meat in sufficient quantity. Their habits in evading the hunter challenged his knowledge and

skill. The game list of birds usually included among the more desirable species:- bustard, ducks, geese, swans, snipe, rails, quail and pigeons with perhaps the emu and mallee fowl because of their meat content in a country conspicuously lacking in large game species. Other species though quite as good for the table but hardly considered real game included:- bittern, coot, moorhen, dabchicks, herons, egrets, spoonbills, ibis, native companion, plover and wattle birds.

It is interesting to note that in eastern Australia the great majority of the more desirable game birds of a hundred years ago are still as common today as previously - relative to other wildlife. This occurs despite the fact that these species have throughout Australia endured the greatest kill by man through hunting, of any of the wildlife species. Only the pied goose and the bustard appear to have been shot out as game birds. Though the kangaroo and the emu were reduced over much of settled Australia this was fundamentally because of their competition with farming in the open country. They were shot out or otherwise eliminated in competition with agriculture rather than as game, and survived in the forests and back country where shooting was more difficult, and settlement sparse.

Early legislation was designed for the well-being and increase of game, both introduced and native, by control of shooting. Acclimatization of preferred species began with settlement, however Western Australia has a more enviable record having fewer introductions compared with the eastern States. Reserves for wildlife started about the turn of the century. At the present time wildlife reserves are receiving concentrated attention from the Fisheries and Fauna Department in conjunction with the Fauna Protection Advisory Committee and results are being achieved on a scale superior to elsewhere in Australia. This activity is vital to the game aspects of wildlife conservation and will be discussed later.

A decline in game commenced in the settled areas very early. It was even more conspicuous with most other species of wildlife and has continued to the present day in those particular areas most frequented by man. However the overall picture, particularly with highly mobile species such as duck and quail, is complicated by tremendous natural fluctuations in numbers from season to season, and by the reservoir of game from relatively untouched breeding areas in the outback.

Losses of game were due to a bewildering variety of causes. However in the last century only those due to direct killing by man were countered in any way. Legislation and publicity concentrated on the effects of shooting and all early laws

related to control of hunting. Loss of wildlife due to poisoning of vermin or clearing of the land may have been regretted in some quarters but the overriding importance of land improvement squashed any suggestion that controls other than for shooting were needed. Lip service was given to controls of other factors at various times but in the long range view these have meant very little out in the bush.

Before the turn of the century insectivorous birds received attention and the usefulness of birds in controlling insect pests was stressed. But again the main emphasis was on prevention of shooting, strangely so,at a time when vast areas of land were being cleared for farms,with enormous destruction of wildlife of all kinds.

After a promising start on the preservation of habitat by the reservation of large areas of public land, in later years the natural history organizations became side tracked in a vigorous campaign against shooting and collecting. This diverted attention from other more significant causes of the loss of wildlife. At the same time it alienated practical bushmen and men of influence in society, needed to keep conservation policies in touch with the public, or the public in touch with conservation.

Meanwhile, the game shooters were individualistic, not organized to a common purpose and ineffective for wildlife conservation. They could not live down the general opinion, largely supported from within their own ranks,that shooting was decimating the ducks and the quail, and everything else that moved in the bush.

Depressed by the smaller bags of game and the few opportunities for game shooting,harried by increasing trespass laws,and fatalistic because of the anti-shooting propaganda of the past 50 years, the game shooter of Australia is one large section of the Public ready for a conservation plan which will preserve the bush and the wildlife. He is willing to pay for and support an effective programme because he has come to realize that the only chance of retaining for him or his children the opportunity to hunt is for game management to succeed.

To succeed under present day conditions in Australia, a game management programme should make provision for Game Research, Habitat Management, Enforcement and the Game Licence, each of these is dealt with in subsequent sections.

4. GAME RESEARCH.

It is necessary to establish the basic knowledge about game and game shooting. Without this knowledge some species could be endangered, the harvest unpredictable and insecure, whilst at the same time game regulations will be unrealistically restrictive and ineffective for conservation.

The hunting of wild duck over the past 100 years has been the greatest and most persistent direct kill of any wildlife in Australia. Regulations for season length, bag limits, sanctuaries, and methods of kill have existed for 100 years. These have been based on what the legislators hoped might happen, as a result of restricting individual shooters, rather than any real knowledge of duck numbers and hunting kill in the field.

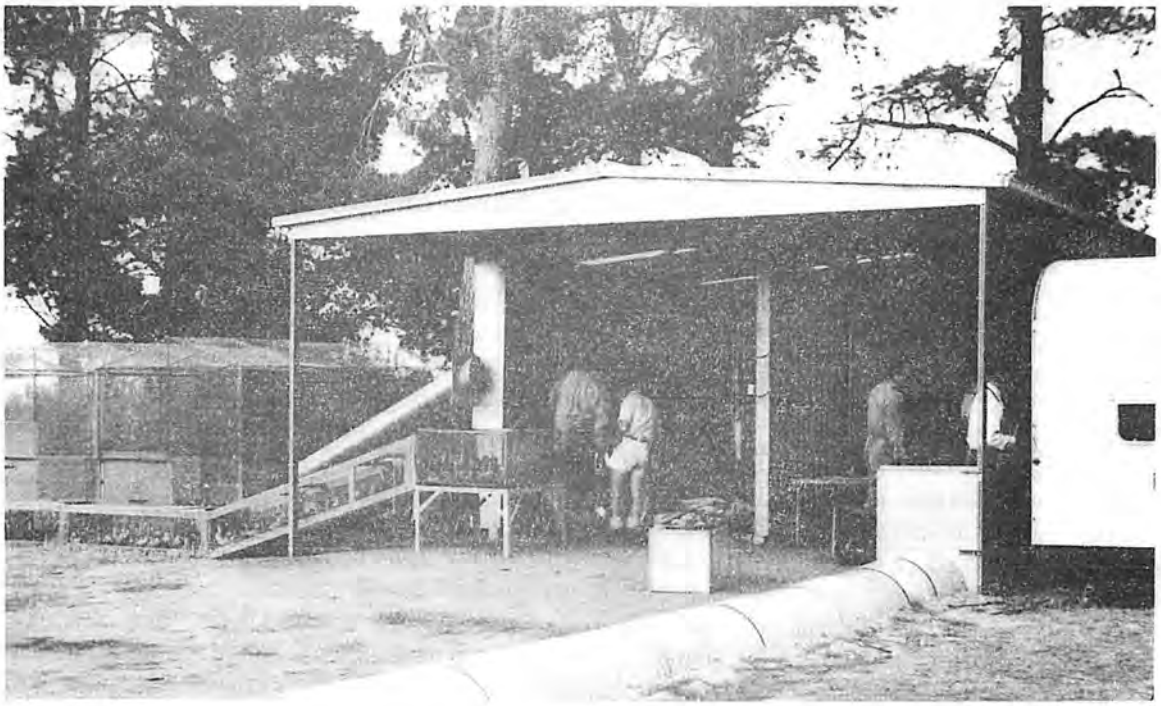
As a factual basis for the whole programme the following research studies, amongst others, are of vital importance.

(a) Duck banding for migration and shooting pressure studies requires regular and consistent banding of a sample of duck each year, preferably at least 5,000 of one species at one locality, completed within one month, and at least one month before the hunting season opens. As a basic procedure for measuring shooting pressure this should be designed for a long term examination of the game species, even over several decades. Simple standard procedures should be used: for example mechanical data processing cards, sex and ageing techniques always standard and always used, standard record sheets; only trained assistants for examination or recording, no volunteer banding unless it conforms to standard and is supervised, (X-ray equipment will be available for loan from Victoria at mutually suitable times), a sample of at least 700 birds of similar locality, species, sex and age group would be necessary.

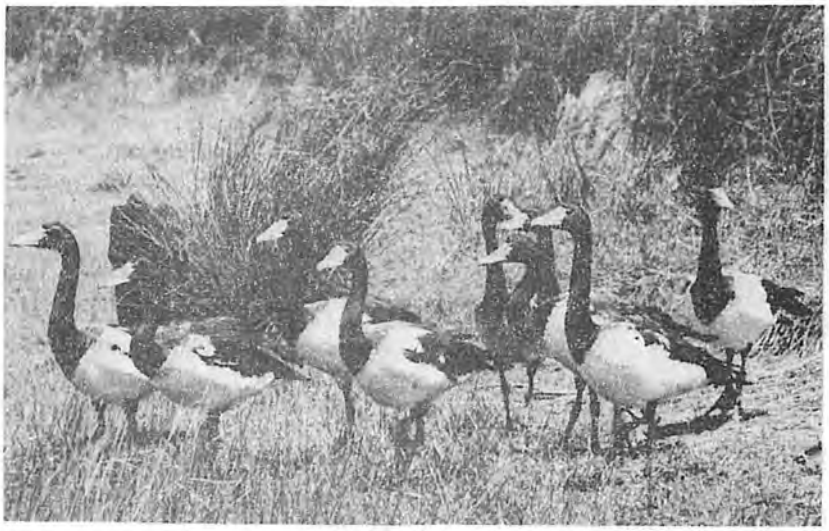
The Serendip Wildlife Research Station is the main centre for this work in Victoria (GB.60).

(b) Species Research. A detailed examination of particular species of importance to the game programme. Briefly this would entail an examination of productivity, movement, ecological requirements, mortality rates, etc. A study of this nature is essential training for individual officers as well as providing basis information, and an opportunity for higher degrees. In particular this work indicates future avenues for game management and implementation of results.

(c) Habitat Survey. Extensive use of swamplands in most areas, or drainage of swamps in others, poses difficult problems for a department fighting a rear guard action to retain suffic-



Research team working on Duck Banding Programme in the Shed at the Serendip Wildlife Research Station.



Magpie Geese at the Serendip Wildlife Research Station.

ient waterfowl (GB. 24, 26, 37, 31, 72). In more cases than not, if the technical information is available, detailing the value of the area to wildlife and the social considerations involved in its preservation, surprisingly enough, the machinery usually exists, and the co-operation is available to preserve many duck swamps. In the vast majority of cases this does not eventuate because the technical data is not available to support the wildlife case. On the other hand only fundamental research will find the answer to some deep-seated ecological problems.

(i) Finding the "best fit" answers to an immediate habitat preservation problem is not always easy. It should not be under-estimated how difficult it is to find an answer of sufficiently high calibre and technical competency to stand up under the scrutiny of the engineering and other land-use experts whose project is threatened by the requirements of wildlife preservation. Time and trained staff are required. This work overlaps that mentioned in the section on Habitat Management. One point should be noted. It is equally mistaken to consider that these problems can be solved only by long term, 5-10 year or longer, fundamental research, as it is to consider the opposite is true, that practical on-the-spot management can replace fundamental research. When a swamp is to be drained in two years time the five year research programme will not save it, yet fundamental research is needed in order to understand the functioning of the swamps as wildlife habitat. Surely it is a matter of defining the problem before attempting to solve it.

(ii) Ecological Research. The pressure to achieve results in time for use in conservation problems often results in fundamental problems being neglected. This may be avoided by defining the problem before it is tackled, stating the objectives and the methods to be used. If this has been achieved the method to be used will be obvious. If funds are limited or early results demanded by pressure groups, only strong leadership can give the fundamental research programme the green light to go ahead, and then the protection it needs to survive and produce results. Often the required supervision and protection can only be achieved within the University. If such research is financed by the Department there should be clear cut agreements reached on continuity of effort required of both parties and the nature of the problem to be investigated. Otherwise disillusionment about the relationship between research and conservation will be the inevitable result.

The nature of the problem varies almost to the same number as there are districts or individual swamps and there is little point in getting down to technicalities here when it is the proper study of a specifically trained officer. One thing is

certain, I have yet to find any wildlife habitat problem which took decades to build up and which could be solved by the consideration of untrained staff in one afternoon. Yet this is often attempted in many parts of Australia. We will return to this point later.

5. HABITAT MANAGEMENT.

A Departmental organization chart of officers' functions in wildlife conservation rarely explains where research ends and management in the sense of implementation, takes over. This indicates that the terms should be defined, or re-fined to accord with actual practice, and avoid confusion with "game management" as defined earlier.

There is a well-recognised need for objectivity and uncommitted assessment in examining the problems of wildlife conservation. Research, it is said, should conduct its studies away from the hurley-burley of the political and social environments.

We must beware of so great a separation that the research results are not longer relevant to the real conditions or needs of the society. Whether because the findings are not applicable to a real environment or because the community rejects or neglects them, the end result is the same, the failure of conservation. For this reason the State programme, to be complete, should contain facilities for both research and implementation. So that each influence the other and both produce the conservation policy.

In this report, for convenience of classification, the functions dealing with wildlife reserves and land use problems are considered together under the heading of Habitat Management but it should be understood that these activities contain a significant proportion of difficult research.

(a) Preliminary Fauna Surveys. In the absence of zoological surveys by Universities, Museums, and other research institutions, it is often necessary for management personnel to compile the readily available information, seek out missing data and present it in an acceptable, and what is more, a convincing form. Co-opted experts are a vital necessity for this aspect. Because the problems are so many and the workers are few, quick but reliable coverage of a known proportion or representative sample of remaining wildlife habitat is all that can be tackled. The allocation of specialist and adequately trained officers to this work is a necessity. It cannot be fitted in as a spare time job along with another already full time occupation such as adminstration or pure research. (GB. 46, 67, 21).

(b) Acquisition of Reserves. The setting aside of an adequate area and variety of types of wildlife habitat is a task of the utmost priority for any wildlife programme in Australia.

This involves much more than a strongly worded statement that such an area should be set aside because it contains this or that rare species. It means the statement of a broad view of the preservation of this type of habitat within the State, the region and the district; the status of the particular species and the special communities for which provision should be made; an examination of history of the area in relation to its fauna (GB. 27); a detailed account of the current use and the factors acting against wildlife in the area under present control; the ways in which protection from these factors, if the area became a wildlife reserve, would preserve and perhaps develop the wildlife numbers; comment on the alternative methods of controlling the land with advantages and disadvantages with respect to wildlife; plus reference to the opposition to the area as a wildlife reserve, particularly setting the record straight as to the nature of factual or non-factual opposition to the wildlife case; etc.

It is obvious that in the course of compiling this data the investigating officer will gather his material from a great variety of experts, both for and against the wildlife proposal. It is essential that both the full strengths and weakness of the positions and arguments be taken into account when preparing the case for submission to Government or other independent deciding authority. In the past, the lack of either foresight or support from public authorities has often been blamed for losing an area to wildlife, when, more accurately, it should have been put down to a lack of preparation of the facts. Adequate training and time of preparation are the two requisites in staff organization for this task. The minimum standard for this work in the Game Management Section of the Victorian Department is three years agricultural college education, thus placing the emphasis on land use training for this particular job.

(c) Management of Reserves.

Wildlife reserves can be classified according to their purpose, whether public hunting can be permitted, or by the nature of the administrative control. In this paper "wildlife reserves" refer specifically to areas of land under the control of the State wildlife authority either jointly or in a supervisory capacity, and include game refuges, and game reserves where hunting is permitted, and faunal reserves for particular species or faunal associations. (See Wildlife Contribution No. 6, Fisheries and Wildlife Department of Victoria.)

The Tower Hill Game Reserve situated on the main east west highway through Victoria is used as the show window for the State Wildlife Reserves system with displays, demonstration projects and other public relations exhibits.

The protection of wildlife reserves from harmful outside influences such as grazing, fires, vermin, interference with water supply, timber cutting, etc., is a major commitment. The presence in any State of large areas of neglected land nominally for the use of wildlife and on paper the responsibility of the Wildlife Department, has a very bad effect on the public attitude towards wildlife conservation. These areas become known as havens of vermin and "highly desirable" agricultural land out of the reach of all but the illegal grazier,for no obviously good reason. Even if neither of these suppositions about the reserves is true the protest is not stopped. It is difficult to acquire a new reserve in these areas, even for entirely different functions, and there is a continual clamour to revoke the reservations.

It is desirable that adequate provision be made for supervision and protection of the reserves concurrently with any continuing programme of acquisition. At the same time, this allows some supervision of visitors to the area and, more importantly,the explanation and demonstration of the special features. (GB.71,51). The whole effect of a properly run reserve is to provide the public with the contact with wildlife vitally necessary if they are going to support its preservation, and to generate a new respect for wildlife conservation as a public service function.

Adequate protection is often all that is necessary with the great majority of reserves. However, depending on the state of agricultural development and the past use or misuse of the area, rehabilitation and development of wildlife habitat, reintroduction of species into former range, and other more intensive management practises may be necessary. In very few of existing areas can this be carried out except on a pilot scale, due to the severe lack of knowledge of most wildlife species and habitats. Except in small specialised reserves, usually set aside for particular species, the conservation of the total wildlife resources, in distinction to intensive propagation of certain species, is an essential principle for the management of wildlife reserves.

(d) Land Use Problems.

No matter how ambitious the programme for the reservation of a series of representative samples of wildlife habitat throughout the State,these will still in most parts of Australia amount to less than 1% of the total area. Even if adequate money is available for reserves protection, many species will not benefit.

The results will be more like the preservation of museum pieces or scattered relic populations for scientific study rather than true wildlife conservation for the people. A much greater impact has to be made on the public and private land use projects, starting with those which have most destructive effects on wildlife. Under existing conditions, rarely can these be stopped but they can be modified more easily than is generally appreciated. But only if, amongst other conditions, adequate provision is made when the schemes are in the planning stages. Last minute attempts to halt or modify schemes which have spent years in detailed planning bring the wildlife enthusiasts into disrepute. To list only a few such projects would include; reservoir construction, swamp drainage, improved river channelling to prevent flooding, de-snagging of rivers, salting of land, closer settlement with clearing the scrub, etc. (GB.61).

The principles of this work are the same as for reserves acquisition and management. It is nothing short of ridiculous for one adminstrative or professional officer, with many other responsibilities, to be given two or three days to familiarize himself with a project which has been prepared over several years by pyramid of full time professional officers, mainly engineers, and to be expected to propose modifications which may preserve part of the wildlife being destroyed by the project. It is no wonder that the suggestions of wildlife preservation have got such short shift or been totally disregarded in some of these projects in the past.

Stated this way the need for full time trained staff for this work is obvious. But it is likely that the practice will still go on of fitting the planning of wildlife in with other duties. This happens, primarily because we as the people do not actually believe that wildlife is important enough to prepare technically for its conservation in the same way as we do for other resources, such as water and forests.

6. ENFORCEMENT OF HUNTING REGULATIONS.

It will always be necessary to police the regulations which are in force at any one time. Despite the fact that research may show some of these to be inefficient or inoperative, and better laws may obviously be a possibility, the laws should be enforced - or scrapped if they cannot be enforced. This is fundamental to achieving the confidence of the public - particularly the shooting public. Primarily this situation is important because of conditions in the bush in Australia.

There will never be enough wardens to enforce the regulations throughout the inland by fear of the consequences. It is only through public confidence in and support for the regulations, that these will have the effects hopefully anticipated by the legislators. For this reason, no matter how desirable a regulation may be, aesthetically or for publicity purposes, if it does not work, is disregarded and cannot be enforced, then serious consideration should be given to its replacement by some more effective practice.

Wildlife conservation in Australia has been plagued by the divergence between the laws on paper which carried the hopes of the conservationists, and what actually happened in the bush where most men are able to follow their own beliefs regarding wildlife protection. The existence of these laws on paper appears to have replaced the need for constructive conservation practices leading to real results.

Despite the orientation of the natural history writing and despite an adverse publicity, hunting and shooting still remain one of the biggest areas of public contact with wildlife. The wildlife Department is the major factor influencing whether this contact is disastrous, of no importance, or of major benefit to wildlife conservation. How the Department handles the shooters, whether it alienates their interests outside conservation, or whether it sees this group of the public as a co-operative and willing force for conservation, to be guided and assisted to a much higher responsibility and value than they have had in the past,will determine the course of wildlife conservation for years to come. By continuing to alienate sectors of the public by impractical and patently disregarded laws, the practice of wildlife conservation in many parts in Australia is not respected. Under these circumstances the decline of wildlife can only continue through indifference and lack of support from the public.

The revelance of these considerations to Western Australia liesmore in the urgent need to think out a theory and practice of wildlife conservation, particularly as it is applied to hunting regulations, than in any specific suggestions. Without a much more detailed examination of the State situation, which would also be the subject of the Game Survey of Western Australia when it is begun, only general comment is possible.

In general, enforcement of regulations, court work and detection is a specialised task requiring training. It cannot be done with honorary volunteers and it is difficult as a part time job associated with other demanding occupations, such as for example game managers, fisheries inspectors, etc. Collection of licence fees, inspection of bags, out of season or sanctuary shooting, killing of protected birds, and enforcement of regulations on wildlife reserves would be the predominant duties.

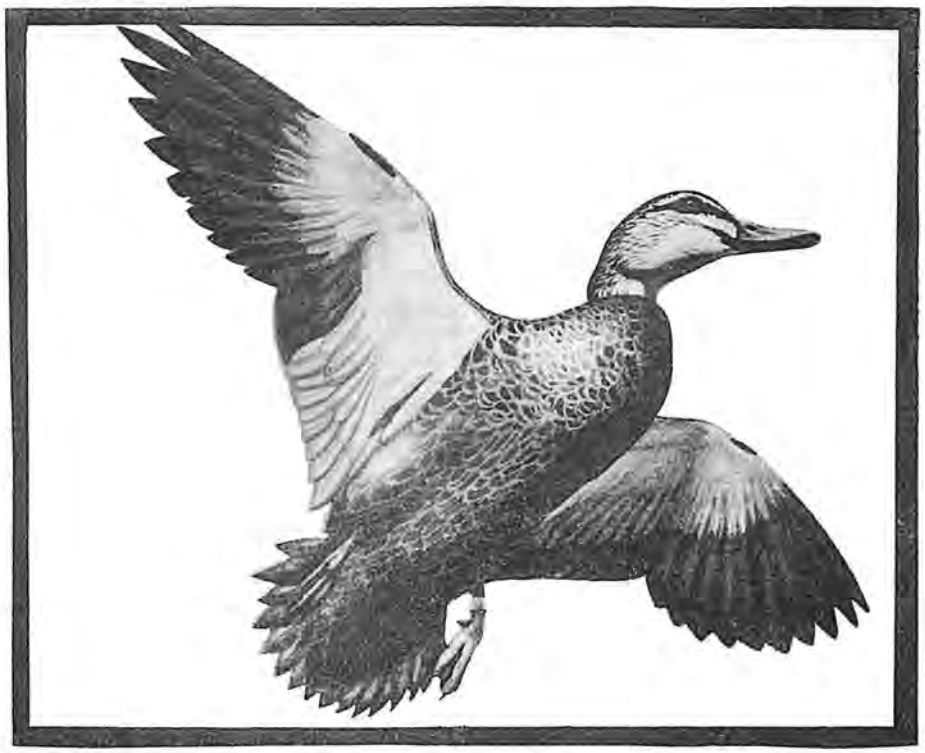
7. GAME LICENCE.

The game licence is the essential feature around which a game management programme of the type discussed in this paper revolves. It provides the necessary focal point for public attention to the problems of game conservation. It provides the initial finance for aspects of the Department's work which would otherwise be delayed until too late, as happened in the past. The licence can be the starting point for many projects which, when their value to the community is demonstrated, develop far greater support and finance than would be available from shooting sources alone.

Its contribution to the philosophy of conservation, is as great, or in the long run, greater than its actual contribution in terms of cash. It plays a large part in reconciling wildlife interests with community needs or experience, by finding a role for the shooter within the conservation ethic.

It is doubtful whether the licence itself encourages further shooting. It does recognize and legitimise the innate urge to hunt, as a community activity of value to mankind, if it can be controlled. Essentially the licence channels interest which already exists,allowing it to be utilized and educated in the best interests of the wildlife and the sport of shooting.

It is the uncontrolled and ill-informed element in the shooting community which is doing damage to the wildlife and to shooting interests. Being anomymous the unlicenced shooter is often irresponsible. A licenced shooter has an identity, as an individual and also collectively. This produces the responsible attitude which is essential, not only in the field but in the context of society, to obtain a new deal for wildlife. The extent to which the current lack of control can be replaced by effective game management in all its phases will be a governing factor in determining society's attitude to wildlife conservation, and hence the future of game and other wildlife. The game management programme in Victoria has demonstrated the effectiveness of this policy. The constructive and responsible attitude engenered amongst shooters by support for a game licence, the changeover by the Department to a constructive management policy from a restrictive and negative attitude toward hunting together with the rationalization of game regulations, have brought about a control and responsibility in this important use of wildlife not possible by any other means.



The experience of the Victorian Department in this regard is recorded in the minutes of the meetings of the Fauna Advisory Committee held on the 17th December, 1965. The reader is referred to these notes, together with specific Departmental publications for greater detail. (GB. 38, 76, 51).

8. PRIORITIES AND STAFF APPOINTMENTS.

The type and qualifications of the staff appointed determine the subsequent course of the programme.

Initial appointments should be to Game Research Units comprising graduate and technical assistants to undertake specific projects. The successful officers will act as a source of experienced personnel for the more responsible and demanding positions as the programme develops. The choice of the particular research projects will be determined by local opportunity.

Of next priority is the appointment of technically trained officers for work detailed previously under Habitat Management. A minimum standard of Diploma of Agricultural College or equivalent is essential in order to cope with the technical land-use aspects. Supervision by a graduate preferably trained in land management is necessary.

Of next priority, the Enforcement Officers should be selected on the basis of education, experience in handling the public and knowledge of bush craft.

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