## The Preservation of Useful and Rare Australian Birds

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The alarming rate at which many of our rare birds are disappearing, and the great diminution in numbers of many of the common species, call for something additional to the enactment of protective laws. The laws introduced are often largely ineffective owing to the lack of administration and control, and, even, if they were rigorously enforced by special bodies, it is still doubtful if the enforcement would result in the increase of some species which are practically on the verge of extinction.

Further, to protect birds by law does not necessarily mean to preserve them, for no amount of protection, as ordinarily understood, will save certain species, without additional means of preservation being applied. Therefore something of a concrete nature is required that will counteract the various forces which incessantly operate against the welfare of rare species, especially those in confined areas. The continual clearing of lands, periodical devastation by bush fires, flood and drought are major factors operating against the multiplication of birds, over all of which we have very little, or no control. Complete systems of vegetation are continuously wiped out. From them a certain proportion of the dependent animals escapes, and many, being endowed with plastic habits, easily transfer their tastes from wild species to plants under domestication. The list of insects that have migrated from the wilds to cultivation is considerable.

Birds were firmly established before the appearance of man, hence the way was prepared for his earliest efforts in agriculture. Until recently there does not appear to have been any serious inroads on his crops by the ravages of pests. In recent times, however, there have been prodigious changes in the biological conditions of the earth, through the agencies of man. Whole systems of natural checks to the depredations on crops have disappeared, while mechanical and chemical checks have come into greater and more frequent use, and not always to the advantage of birds. Man sweeps before him vast biological associations replacing them by his artificial assemblages, dispelling all cause for wonderment that the disappearance of useful birds is entailing upon him the necessity of expending huge sums of money in order to cope with the increasing attacks on his husbandry.

How can we overcome the result of man's "national progress"? A method that would not only preserve many rare species for future generations, but would also maintain many in relatively strong numbers in a wild state is for the

various State Governments to establish aviaries on their many experimental farms. Some zoological gardens authorities and private aviculturists breed, at present, some of our rarer parrots, for example, but beyond sale or exchange with other institutions, etc., the matter goes no further. Useful and rare birds could be housed, fed, and bred in any numbers for liberation, in proportion to the stocks on hand, during favourable seasons, and in their proper or appropriate habitats. Thus if a species increased to one hundred birds, twenty or so could be liberated in the wilds, retaining the balance to carry on the species under domestication.

A start could be made with rare Pigeons, Parrots, Finches, and some of the insectivorous birds. The Bourke Parrot for instance breeds readily under suitable treatment. Quite recently I inspected an aviary in which a pair of these lovely birds had a family of four healthy and robust young, and, being fed to their liking, they all thrived, even under the rudest conditions. The utmost confidence which they placed in their keeper pointed to their amenability to a restricted

environment.

Aviculture, if included in the curriculum of the experimental farm, would bring wild birds within the scope of the science of domestication, adding interest to the curriculum, and might in time develop into a valuable adjunct of poultry farming. Experimental farms could grow the necessary food in abundance, so that there would be no bad seasons to decimate the species whilst under domestication. Licences could be granted to approved aviculturists to breed certain rare birds in conjunction with the experimental farms, levies of a percentage for liberation being a part of the conditions of the issue of each licence. Experts attached to the farms could control that phase. Committees of ornithologists and aviculturists could help the respective Governments in suggesting what species to breed, as well as helping with regard to the food supply and general management. Governments could even extend the aviaries to include all species of indigenous birds kept in cages, eliminating commercial trapping with its attendant cruelty, but allowing dealers to trade direct with the government aviaries in common species only. Absolute prohibition should be enforced with regard to rare species. This is the age of "kindness to animals." The method outlined could be applied also to Australian mammals.

Birds bred in an aviary are more amenable to confinement, while feral birds would adapt themselves to a changed environment more readily than "natural" birds, hence a system of domestication and liberation would be more practical than transporting wild birds from one locality to another in an effort to preserve them. It is imperative that liberation should be made at a time that would enable birds to assume

the feral state before climatic influences had a chance of

working against them.

Coloured charts or maps of life-size rare birds, with names and descriptions, could be displayed at all police stations, public schools, shire and municipal offices. The charts should not show more than a dozen of the rarest birds to be found in any particular district. Thus the chart for the police district of say Bourke, N.S.W., could include birds which frequent that area. It is unreasonable to expect the police to administer the law in relation to the protection of several hundred birds.

Finally, pets, the keeping of which occupies man's leisure, have a humanizing influence on him, bringing before him many of the problems associated with the living things about him, and while governments of the day restrict his actions by legislation and regulation in many directions, they should afford him substitutes by inculcating and providing instructive hobbies, and aviculture is one of them.

Food of Podargus.—Dr. D. L. Serventy's excellent paper on this subject was read with very great interest and enjoyment. A note from F. Lawson Whitlock is quoted in support of the opinion that the Frogmouth sometimes attacks soft fruits. Bunches of grapes near the ground were being damaged, and on a rabbit trap being set by Mr. Whitlock, he was surprised to find a Frogmouth caught by the foot next morning. But is it not possible that the grapes were damaged by some small rodent and that the bird was making a dive to capture it when he was himself caught? We know how attractive fruit is to some of the rodents—ripe apples, for instance, will bring in rats from quite a distance.—H. STUART DOVE, Devonport, Tas., 7/10/36.

Magpies Interbreeding.—Mention is made in The Emu, October, 1935, of Black-backed and White-backed Magpies (Gymnorhina tibicen and G. hypoleuca) interbreeding. That practice has seemingly been the means of losing to the Wilton district, between Appin and Picton, New South Wales, the White-backed bird as a definite, clear-cut form. About twenty-five years ago, I understand, the two forms were present in about equal numbers but since then they have interbred to such an extent that true White-backed birds are now seldom seen, although birds showing intermediate colouring are frequently met with. Apparently the "Black-back" is the more fixed type of the two, for true specimens of them are very common.—Ellis McNamara, Cordeaux River, N.S.W.