

ill-omened or uncanny. This is at least unfair to our feathered friend, although perchance it acted the part of sexton in olden times when it picked the meat from the bones of the corpse hanging from the gibbet. The diet of a crow is as varied as its appetite is constant, and vegetable delicacies in the shape of different varieties of fruit, both cultivated and wild, and even green peas, have been known to be devoured by it on occasions. Its carrion eating habit, alas, has been the crow's undoing, and whilst it takes a toll of young rabbits captured by it alive, yet whilst fulfilling its part of purification in nature by demolishing dead animals, it falls a victim to poisoned rabbits through feasting upon their stricken bodies, although it is credited with the knowledge gained by experience that a dead rabbit is dangerous.

They are very sagacious, and have been known, when they have obtained an overplus of food, in the shape of hen eggs stolen from a farm yard where the fowls are allowed to lay their eggs promiscuously, to bury the surplus under the soil.

Scientists are divided in their opinion as to whether the Australian crow and raven are separate species of birds or are synonymous. To most persons they are known as crows. Some maintain that there is no line of demarcation between them; others separate those that have white bases to the feathers on the nape of the neck from those that are dark or slatey coloured. Others again classify the birds with white eyes as crows, others again judge them by the colour of the interior of their throats, their size, or the timbre of their voice, or shape of bill. The raven, some maintain, calls caw, caw, caw, whilst the crow, in a higher key and with lighter tone, says car, car, car-r-r.

As a pet the bird is both cleanly and amusing, and even amazingly intelligent. The late Mr. A. W. Milligan, who kept white-eyed crows in confinement stated that as a pet bird he regarded it as the most interesting and entertaining of all. It possesses a keen intelligence, and is easily domesticated and affectionate. It is a veritable "nigger minstrel" of bird life, with its shining black dress, its droll attitude, unlimited "patter" and the facility with which it showed the whites of its eyes.

Do Birds Rear a Second Brood in a Season?

By J. NEIL MCGILP, Adelaide.

I HAVE noticed that writers in the *Emu* often refer to a second brood for the season. I have always thought that many of our birds in a good season had a second nesting period and with a desire to get proof of it I have taken careful observations of certain pairs of birds for the past few seasons. So far as these observations go I am now quite satisfied that few of our birds rear a second family in a season, though, if the season is suitable they will lay a second, third, and even a fourth time if anything happens to destroy the other set or sets of eggs.

In the wide open spaces of our bush lands where birds are plentiful it is not always possible to keep in touch with a pair of birds, and it is only when a pair of birds reside in an isolated spot that one can with any degree of certainty ascertain how often they nest. I have, therefore, only attempted observation of certain birds, that from strong circumstantial evidence must be considered the same pair, over several years.

One of my test cases was that of a pair of Blackbacked Magpies (*Gymnorhina tibicen*). These birds nested annually in one tree of a clump of four fine gum trees growing near a well right out on an open plain. These birds always remain near the well and at night time roost in the trees. Except during very severe heat periods these birds are the only ones near the well. In 1920 these Magpies hatched out a brood and made no further attempt at nesting. In 1921, I took their first set of eggs with the result that they built in an adjoining tree; this nest I robbed of three eggs, but the birds returned to their first nest, which they repaired, and finally brought out four young birds. In 1923, I again experimented by taking the first set of eggs and the birds built again and reared four young Magpies. In August, 1924, the birds had four eggs, which they hatched out, and my brother kept an eye on the birds, but they did not attempt a second clutch.

I know of a pair of Kestrels (*Cerchneis cenchroides*) that nest every year in a hollow spout of a Box tree, one of a small clump, that grow near a small table top hill well away from any timber. One never sees more than the pair of birds, except for a month or two after the young take off from the nest. In 1921 I took their first set of eggs, four in number. They laid four more eggs in the same hollow and reared the young. In 1923 the pair of birds reared four young from the first nest, but made no attempt to bring forth another brood.

Presumably the same pair of Owlet Nightjars (*Aegotheles cristata*) breeds every year in the same hollow of a gum tree growing in a small watercourse. In 1921 they reared only one brood of three young. In 1922 I missed visiting the hollow in time to find the young, which by all appearances, had recently left the hollow; a careful watch was kept, but the birds did not lay again. In 1923 I took the first set of eggs, but again another set was laid and hatched out in the same hollow.

A pair of Welcome Swallows (*Hirundo neoxena*) can always be found near a well; they roost in the well throughout the year, and except for a short period when they have the young on the wing with them, they are the only swallows to be found in the vicinity. These birds have each year since 1921 reared only one brood. In 1922 the first set of three eggs was taken, but they nested again in the well. The nest is invariably built between the sets of timber in the well and quite 25 feet down from the surface of the ground.

Another pair of these swallows roost throughout the year in a gas-house at the homestead on Moolawatana; they have reared one brood only each year. Twice the eggs have been taken and the nest pulled down as an experiment, but the birds laid again and hatched

out three young. The young birds do not remain about the home-
stead for any length of time.

With a desire to experiment with some of the smaller birds, I robbed a pair of Blue Wrens (*Malurus cyaneus*) that have, until recently, been "at home" in my garden at King's Park, Adelaide. In 1920 I took their first eggs but they built again and successfully hatched out three young. In 1921 I even went further, and took the eggs of their first and second nest; the birds only built again within a few yards of the other two nests and brought out three young. This pair of wrens have only had one brood each year since I have lived here. I regret to say that this year, when they were putting the final touches to their nest they disappeared, having, I think, the misfortune to meet with death by cats which had until then escaped my attention, but have now been interred with 32 other cats (gathered during the last six years) under my fruit trees. Though I missed the wrens in October I have not yet seen any other wrens in my garden, but as my neighbour's wrens have a brood with them, I fully expect some of them later. I have never found more than one pair of wrens in my garden except when they had their young with them; they have always hunted out the young birds.

A pair of Silver-eyes (*Zosterops lateralis*) have for the last five years nested in fruit trees in my garden. I have only found them with one brood each year, though in 1922 I took their first set of three eggs; their second nest was built in the same tree and the young hatched out. In 1923 I took two sets from the little birds, but again they hatched out three young in a tree not twenty yards away; the first set was of three eggs and the second two eggs, but these were quite fresh and may have been taken before the set was complete.

Some readers may think that I have been hard on the birds. My experiments have been done with a desire to gain some knowledge of our birds and their habits and I have from my observations proved to my satisfaction that birds seldom bring forth a second family. This is quite contrary to what I hoped to prove, I have always thought that the birds produced offspring a second time in a season, especially in the interior. I know that birds in the interior always lay larger clutches of eggs in a good season. In this way I suppose they endeavour to make up for the previous bad time.

This is a subject that is well worth working out and I should like other members of the Union to quote from their observations when they have an opportunity to study the same pair of birds for a few seasons.

Grey Teal (*Virago gibberifrons*) in the Riverina.—The adult birds left here in December, 1924, but the fledged young were not able to fly (in some cases) till the middle of March, 1925, when they too left. This is our commonest duck, but, although still common, it is not as plentiful as it was some years back. The wholesale slaughter of our wild ducks, carried on each year, under the title of "sport," is rapidly thinning out all the species.—F. V. McMICKING, R.A.O.U., Kincora, Toootool, N.S.W.