

AUSTRALIAN MAGPIE FEEDING ON PINE SEEDS. While conducting a census of birds at Kooyonga Golf Club in the Adelaide suburb of Lockleys on 16 November 1993, I observed a flock of Australian Magpies *Gymnorhina tibicen* of the white-backed subspecies. There were about 10 birds and all but one flew off at my approach. The remaining bird was an adult female and I thought that she was an old bird, because her black head feathers were mottled and the right wing drooped.

I observed this bird for about five minutes while she fed on the ground, taking seeds from a pine cone and from the ground nearby. She pecked out the seeds or took them off the ground and closed her bill on the hard part of the seed, leaving the seed wings attached to the outside of her bill. Occasionally the bird rubbed her bill on the ground, presumably to remove the seed wings. After about five minutes she slowly walked off and was seen a few minutes later on an adjacent green. The cone from which she had been feeding was three-quarters open and had only one seed left exposed. There were 12 'empty' seed wings near the cone and four intact seeds. Officers of the State Herbarium of South Australia were unable to identify positively the species of pine involved in this incident, but they thought the most likely species were Corsican pine *Pinus nigra* or Aleppo pine *P. halepensis*.

The standard reference on the food of Australian birds (Barker and Vestjens nd) does not mention pine seeds as a food for Australian Magpies, so presumably this is not a common occurrence. I know of one other report of an Australian Magpie taking pine seeds. This was on 6 January 1966 at Victor Harbor (Joan Paton pers. comm.) when a bird cracked open pine nuts by holding them in the

tip of its bill and banged them on the ground, and consumed the kernels. These large nuts were most probably from a stone pine *Pinus pinea* and are presumably energetically rewarding for a large bird like a magpie. However, the seeds of the pine cone at the golf course were small and may reflect the poor health of the female bird and her inability to find sufficient food over the normal range of a magpie's diet.

It is well known that many species of cockatoo and parrot feed on seeds from a range of pine species. Moreover Barker and Vestjens (nd) record White-winged Chough *Corcorax melanorhamphos* as feeding on *Pinus* sp. seeds and Australian Raven *Corvus coronoides* as feeding on unspecified parts of radiata pine *Pinus radiata* and other *Pinus* spp. Thus opportunistic feeding on pine seeds may occur widely among Australian birds and this raises the question of how birds learn that these are food. This is particularly the case with pine nuts, which are enclosed in a hard case. Presumably young birds learn from adults that the pine nut has to be cracked to obtain the kernel. Similarly, a chance finding by a bird that the seeds of introduced pine trees are edible may be passed from adults to young birds in particular areas.

REFERENCE

Barker, R.D. and Vestjens, W.J.M. nd. *The food of Australian birds. 2, Passerines.* CSIRO Division of Wildlife and Ecology, Lyneham, A.C.T.

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