Notes on the House Crow *Corvus splendens* in Mauritius

by C. J. Feare & Y. Mungroo

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House Crows *Corvus splendens* have become naturalised in many countries bordering the Indian Ocean, following both deliberate introductions and ship-assisted passage from ports in the native range, especially India and Sri Lanka (Long 1981, Lever 1987). In some parts of their new range, House Crows cause a variety of problems, including nuisance and possible health hazards for man and his domestic stock, as well as having led to declines in populations of native birds (Ash 1984, Dolbeer 1987, Ryall & Reid 1987). While some aspects of the birds' biology are known in India (Ali & Ripley 1972), very little is known about introduced populations.

The Mauritius population has increased from c. 100 birds in 1976 (Staub 1976) to 600–1000 birds in 1988 (Feare & Mungroo in press), mainly concentrated in the capital, Port Louis, but with an outlying colony in Pamplemousses Botanic Garden and isolated nests elsewhere. Sightings of flocks as far inland as Curepipe (25 km from Port Louis) suggest a continuing expansion of range.

The present observations were made during a visit 2–16 October 1988.

BREEDING

Courtship feeding and mutual allopreening were seen during this study (early October) and birds were building nests. The testes of males collected in experiments on control (Feare & Mungroo in press) were enlarged and although the ovaries of females were still small, oogenesis was proceeding, suggesting that egg-laying would occur within a few weeks. Only 2 nests found were isolated, the remainder were in colonies; at the quarantine Station, Roches Bois, 24 were found in one large Banyan tree. Lamba (1963) recorded finding up to 9 nests in one tree, but Goodwin (1976) claimed that they usually nested singly and Ali & Ripley (1972) did not mention social breeding. In Mauritius, House Crows are predominantly colonial. Nests in almost all colonies were built mainly of twigs, but nests in the Roche Bois area were constructed almost entirely of wire. Nests were generally at least 10 m above the ground in tall trees, mainly in Banyan *Ficus benghalensis* or in another (unidentified) *Ficus*. A few nests were found in other trees: *Terminalia mantali, Tebebuia pentaphylla, Callistemum* sp. and *Mangifera indica.*

No adults were seen feeding young and no juveniles were seen. The samples that were collected contained some first year birds, identified by their browner, less glossy remiges and rectrices, together with very worn primaries, several with the tips broken off, a feature of ageing first year birds (Ali & Ripley 1972). Their behaviour and gonad condition suggest that House Crows in Mauritius have a discrete breeding season in October–November, but further study is needed to confirm breeding season limits and factors which affect breeding success.

TABLE 1

The weight (g) and wing (flattened chord) and culmen measurements (mm) of House Crows *Corvus splendens* captured in October 1988 in Mauritius, and of a series of birds (number and location unknown) from India given by Ali & Ripley (1972).

	MALE			FEMALE		
	WEIGHT	WING	CULMEN	WEIGHT	WING	CULMEN
MAURITIUS						
Mean ± s.e.	316.6 ± 5.3	268.2 ± 1.9	50.9 ± 0.7	269.7 ± 4.4	246.6 ± 2.7	45.8 ± 0.6
n	16	18	18	10	10	9
Range	270–371	255–286	45–56	245–295	237–267	42–49
INDIA						
Range	310–362	266–284	51–56	252–304	252–282	45–50

FOOD

House Crows from all the major colonies around Port Louis fed at the Roche Bois rubbish dump, indicating the importance of garbage as a food source. Away from Roche Bois, garbage in flood drainage channels also was eaten. In town parks and gardens, crows readily took bread, rice and noodles that had been dropped or which had been deliberately thrown down as food for smaller birds. In Port Louis, roadside stalls at which bread and cakes were made, usually had crows in attendance on nearby branches or walls. Evidently, Mauritius House Crows feed mainly on by-products of human activity, since few other food items were seen to be taken. Ripe Banyan figs were being eaten where these trees occurred in or near colonies. Crows also spent considerable effort in removing small fragments of the oily fruit coat of the palms *Livingstonia chinensis* and *Veitchia merrilli,* taken from fruits on the trees or from the ground beneath. In Pamplemousses Botanic Garden, a small dead chick of a Red-whiskered Bulbul *Pycnonotus jocosus* was found with the clear mark of the hooked beak of a House Crow in its soft skull.

BIOMETRICS

Specimens collected were weighed on a Pesola balance, the wing (flattened chord) and culmen measured, and sexed by dissection. The Mauritius data (Table 1) agree well with those from India (Ali & Ripley 1972), except that in Mauritius there is a clearer separation of the sexes by wing length; males were considerably larger than females, a size difference that was readily apparent in flocks.

DISCUSSION

Ali & Ripley (1972) reported a wide variety of food items that were taken by House Crows; the limited range of foods recorded in Mauritius is clearly far from complete. Mauritius crows are heavily dependent on garbage but a study of their food throughout the year would be valuable. Feare & Mungroo (in press) recommend that crow numbers should be controlled and for effective control, suitable baits, more attractive than food already available, are needed. Tinned tuna fish was found to be a highly attractive bait, but alternatives would be required if bait aversion began to reduce the effectiveness of control.

We would appeal for maximum use to be made of dead House Crows. Much can be inferred about breeding status and population structure

from large samples of birds, and their pathological examination at the Mauritius Animal Health Laboratory could help to identify possible public and animal health risks, helping to refine and improve control tactics in the future in Mauritius and elsewhere.

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Notes on some Hawaiian birds from Cook's third voyage

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Scientific knowledge of the birds of the Hawaiian Islands began with the discovery of the archipelago in 1778 on the third and last voyage of Captain James Cook. Contemporary accounts of the Hawaiian avifauna and the history of the specimens brought back from the islands on that voyage have been compiled in an exhaustive monograph by Medway (1981). These accounts and the specimens are of interest not only historically but also from the standpoint of systematics and nomenclature, because most of them are the basis for the descriptions of new species. Further research into the history of Hawaiian ornithology has enabled me to amplify or modify a few points discussed by Medway.