area under the eye; bill horn coloured; iris dark brown and legs grey.

Females: appear the same as males.

This description differs from that given by Forshaw in that the cheek patch is very pale yellow and the two central rectrices are all white.

Eleven of the specimens had empty crops. The rest contained up to 19.7 grams of material, when dried. Most had been feeding on rice or grain sorghum. Four other species of plant were identified in the crops by their seeds: barnyard millet Echinochloa crusgalli, Trianthema triquetra, Cloeome viscosa and hogweed Boerhavia diffusa.

The measurements of these specimens of Little Corellas show that there is a difference in size of the sexes and that there is a difference in size between populations from two different areas. Further collections will be necessary to examine the differences between populations throughout the range of the species. This difference in size between populations may have confused matters in the south-west of Western Australia where both the Little Corella and the Long-billed Corella Cacatua tenuirostris occur. Any attempt to look at the distribution of Little Corella ought to try to clear up the confusion regarding the specific status of these two Corellas.

I wish to thank Mr G. Bell of the Agriculture Protection Board for his help in collecting and despatching material from Kununurra.

REFERENCES


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30 March 1977.

STARLING ROOST-SITE SELECTION: PREFERENCE FOR PALM TREES

By design or accident human activity has resulted in the colonization of most of the world's temperate areas by the European Starling Sturnus vulgaris. Probably throughout its range the species gathers at night into large roosts and the function of such roosts and roosting behaviour have received considerable attention (e.g., Brodie 1976; Jumber 1956; Odum and Pitelka 1939). While examining behaviour at Starling roosts in Santa Clara County, California, I noted that three of the five roosts I located were in palm trees. The apparent preference for palms might have been due to improved heat conservation within the enclosed crowns of such trees but it was not possible to obtain a suitable demonstration that the apparent preference was real.

An opportunity to demonstrate such a preference occurred on the nights of 9 and 12 August 1974, at Narroamine, NSW, where a flock of 750-1,000 Starlings roosted in a row of ornamental trees. The trees included nine of a single unidentified deciduous species, then leafless, six broad-leaved Queensland Lacebark Trees Brachychiton discolor, and six Date Palms Phoenix sp. The distribution of Starlings within the row of trees was noted during arrival and departure, by observing the roost at night with flashlight and from the distribution of excreta under the trees. Table I gives the location and species of trees, estimated height, diameter of crown and occupancy.

Birds arriving in the evening landed in all three types of trees but shifted out of the leafless into the broad-leaved or palm trees. On 9 August all birds spent the night in five of the palm trees but on 12 August groups of about ten and thirty birds were still in the broad-leaved trees at dark. They were not there in the morning, however. If the nine leafless trees were unsuitable for roosting and if only those trees in which birds were known to have passed the nights are considered, the use of five of six palm trees and none of six broad-leaved trees shows a significant difference (Fisher Exact Probability, two-tailed = 0.031).

From below, both palm and broad-leaved trees had nearly perfect canopies, the former being more compact and spherical. Because air temperatures at night were cool (< 8 °C on both nights), it is reasonable to assume that birds would choose a tree in which heat conservation would be facilitated. The dispersion of available perches in the two types of trees may prove different and it may be that within palms one can achieve a greater roosting density. Microclimatic studies might reveal whether the down-curving leaves of palms actually provide better
TABLE I

Distribution, size and occupancy of trees in a Starling roost, Narromine, NSW.

<table>
<thead>
<tr>
<th>Type of tree</th>
<th>N</th>
<th>P</th>
<th>N</th>
<th>N</th>
<th>B</th>
<th>P</th>
<th>B</th>
<th>B</th>
<th>P</th>
<th>N</th>
<th>N</th>
<th>B</th>
<th>P</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (m)</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Crown width (m)</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Distance from end (m)</td>
<td>116</td>
<td>112</td>
<td>108</td>
<td>105</td>
<td>95</td>
<td>92</td>
<td>87</td>
<td>79</td>
<td>75</td>
<td>72</td>
<td>46</td>
<td>41</td>
<td>36</td>
<td>27</td>
</tr>
<tr>
<td>Occupancy 9 Aug.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupancy 12 Aug.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

N = Leafless tree
B = Broadleaf tree Brachychiton discolor
P = Palm Phoenix sp

insulation than the more irregular horizontal foliage of broad-leafed trees.

Demonstrating that the observed dispersion of birds in a roost is non-random is statistically trivial but may point to those factors such as structure and microclimates of roosts, composition of flocks and tradition, which are essential to understanding the social biology of a species. Actual measurement of microclimate in various parts of a Starling roost remain to be performed but Brenner (1965) demonstrated that single Starlings had significantly greater metabolic rates and significantly shorter survival times than did Starlings roosting in pairs and fours, when subjected to temperatures of 2–4 °C. It is therefore reasonable to predict that microclimate ought to play an important role in the selection of roosting sites during winter for Starlings.

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MICHAEL GOCHFELD, Field Research Center, Rockefeller University, Millbrook, NY 12545, USA. 17 May 1977.

NEST AND EGG OF THE BARRED HONEYEATER OF NEW CALEDONIA

Though the endemic Barred Honeyeater Guadalcanaria undulata is not uncommon on New Caledonia, it is not often met with near coastal towns where most people live. Therefore its natural history is largely unknown. During November and December 1976 I found it in all patches of humid rainforest: on Mont Panie and near Kavaatch in the north of the island and in the south on Mont Ouin and in the tributary valleys of the Quinne Rivière, Rivière Bleue, Rivière Blanche and the Mois de Mai. I did not search the Niaouli (Melaleuca leucadendron) woodlands thoroughly; however (Warner 1947, Ph.D. Thesis, Cornell Univ.) noted it in them only when certain plants were in flower. He found it commonly in Le Maquis des Terrains Miniers (cf. Geographie de la Nouvelle-Caledonie et des Îles Loyauté. Noumea: Min. Educ. Jeun. Sports) between May and September when many flowers were in blossom.

This heath-like vegetational complex is common at lower altitudes in the south and is characterized by an arid red lateritic soil, prone to much erosion because the low stunted bushes, shrubs and ferns are sparse and there are few herbs. The only time when I saw G. undulata in this vegetation was when I flushed a sitting bird from its nest on 22 December on a northern slope of the Rivière Blanche valley near its headwaters. Apparently the nest and eggs of this species have not been described.

The cup-shaped nest (Plate 1) was attached to grasses and the low branch of a small bush Xanthostemon auranticum (Myrtaceae). It was well hidden from view by the bush. The exterior base of the nest was thirty centimetres above the ground and the site was at least eighty metres from the nearest patch of humid forest. The nest was strongly constructed with a tightly woven outer base of dead