

## Observations of breeding activity in El Oro Parakeet *Pyrrhura orcesi*

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*Pyrrhura orcesi* es un loro poco conocido y amenazado globalmente, que se encuentra restringido a un pequeño sector del área de aves endémicas de Tumbes, en Ecuador. La poca información disponible sobre su ecología indica una temporada de nidificación que va de marzo a mayo. En diciembre de 1997 y enero de 1998 observamos una pareja que mostraba comportamiento pre-nupcial (enlace de la pareja, reclamo del hueco del nido y cópula). Creemos que la temporada reproductiva pudo haberse adelantado debido al fenómeno meteorológico de El Niño.

### Introduction

El Oro Parakeet is restricted to the Tumbesian Endemic Bird Area<sup>5</sup> of Ecuador, and is considered Vulnerable<sup>2</sup>. It was described in 1988<sup>4</sup> and remains poorly known<sup>1</sup>.

On 14 December 1997, we were searching for the species in humid upper tropical forest at the type-locality of Buenaventura, 9.5 km west of Piñas, El Oro province, Ecuador, at c.03°39'S 79°45'W. The previous day we had seen a group of 12 birds. At 10h30, a group of seven birds flew over a clearing, prompting another individual to fly to the top of a tree and commence calling. (Its vocalisations were taped and have been deposited at the British Library, National Sound Archive.) At 10h50, the bird disappeared from sight, but continued calling. At 11h15 BLL located the bird calling from within a hole in a tree.

### Observations

We observed the hole from 11h15–13h05 and determined that the calling bird was a male (extensive red on forehead); calling all the time, it regularly poked its head out of the hole and clambered fully out prior to flying off at 12h25. From 12h11–12h12 an adult female also poked its head out of the hole, but returned inside and did not emerge for the remainder of the observation period.

Although it is possible that we had chanced upon an occupied nest, it is more likely that we observed pre-breeding activity. The female is unlikely to have been incubating eggs or attending nestlings, as parrots are usually quiet (for obvious reasons) when they have laid. As parrots frequently demonstrate their interest in a nest site prior to laying, it is likely that the male may have been warding off other birds while his mate prepared the nest. The persistent, noisy, self-advertising by the male is typical of pre-breeding activity, boosting the pairbond and driving away potential rivals for the site, while the female makes an appropriate nesting cavity inside the tree.

Such a hypothesis is supported by BLL's observations when he returned to the site on 31 January 1998. On this date, he watched a pair copulating in

the nest tree clearing (the male was later seen eating *Cecropia* sp. flowers), but did not see any activity at the nest hole itself.

Although we have no conclusive evidence that birds actually nested in the tree, we feel it worth putting on record characteristics of the nest location and tree.

### Nest location

The nest tree was in a clearing of 10 ha (200 m by 500 m) between patches of primary forest at c.950–1,000 m. The clearing contained grass up to 1 m high, which had been grazed by cows (but not during the previous month), with scattered trees including palms and *Cecropia* sp. The nest tree was on a 30° slope, c.15 m from the nearest tree (of the same species as the nest tree), c.25 m from a track, and c.75 m from the nearest forest border.

### Nest tree

The nest tree belonged to the family Meliaceae and was common (the commonest tree in the clearing after *Cecropia* sp.), the local name being "Nogal de Montaña". The tree was 18 m high, with a smooth, pale grey trunk sparsely covered in lichen. The lowest branch was 12 m above ground, and the tree was in leaf (but not flower or fruit). The hole, apparently that of a woodpecker, faced east. The oval-shaped hole was c.5 m above ground, and 50 mm wide by 40 mm high.

### Discussion

The nest of *Pyrrhura orcesi* is undescribed, and, although hardly unexpected, our observations are the first indication that the species breeds in cavities in small trees. Our understanding of the species' breeding seasonality is poor: given that fledged young have been observed begging for food in late June, Ridgely & Robbins<sup>4</sup> speculated that the main breeding period was March–May; fledged young were also observed being fed in August<sup>1</sup>. Our observations of pre-breeding activity (pair-bonding, preparing the site and advertising their occupancy) in December and of copulation in January indicate a 1997–98 breeding season somewhat earlier than

that hypothesised by Ridgely & Robbins<sup>4</sup>. The year 1997 was associated with the weather phenomenon El Niño Southern Oscillation, which is renowned for its effects on natural cycles (see Haase<sup>3</sup> for an account of observations of the 1997 El Niño on birds in coastal Ecuador). In Ecuador at least, the 1997–98 breeding season was generally considered to have been advanced by two months (e.g. at Bosque Protector Cerro Blanco, Guayas province: pers. obs.), and it is likely that our apparently early breeding date was due, at least in part, to El Niño rather than implying that the species is double-brooded.

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