SYMPATRY IN PAROTIA LAWESII AND P. CAROLAE

Schodde and McKean (1973) identify the apparent boundary between the distributions of Parotia lawesi and P. carolae in the Lai and Jimi River regions on the northern versant of the central cordillera of New Guinea. Their statement is based on my own sight records of P. carolae towards the headwaters of the Jimi River and specimens of P. lawesi collected by Bulmer in the Schrader Range to the west. This constitutes an overlap of about sixty kilometres along the western arm of the Bismarck Range and the Schrader Range. Gyldenstolpe (1954) acquired two specimens of P. carolae from the Jimi while he was at Nondugl in the Wahgi Valley. His specimens probably came from or near the valley of the Walne River, a tributary of the Jimi flowing north from the Sepik-Wahgi Divide. This record would be ten or more kilometres to the south but only slightly east of my own sight records reported by Schodde and McKean.

Since the publication of Schodde and McKean's paper, I have spend twelve more months (1973-74) in the Jimi Valley. I lived in the village of Tsuwenkai, inhabited by the Maring people, (approx. 5° 25'S, 144° 38'E) on the southern fall of the Bismarck Range about midway in the presumed region of overlap of P. lawesi and P. carolae. My research was an anthropological study of the exploitation of birds-of-paradise (Paradisaeidae) by local hunters and traders. Data were also gathered on the distribution and numbers of birds-of-paradise. Though I made no special efforts to obtain date on Parotia I observed birds of this genus several times while searching for other species of Paradisaeidae.

My earlier (1972) observations of P. carolae, cited by Schodde and McKean, were made in secondary forest at 1,700 metres. Bulmer's specimens of P. lawesi from the Schrader Range were collected in primary forest at about 1,900 metres.

In the Tsuwenkai area I observed female P. carolae in secondary growth and garden areas at about 1,600 metres. I also observed an adult male P. carolae display at a bower at about 1,750 metres in secondary forest. The species was also observed in primary forest. At 1,770 metres my wife saw a pair near the edge of disturbed primary forest and at 2,000 metres on a ridge I observed one pair. Several times I also heard P. carolae calling from primary forest, near the transition zone with secondary forest above 1,700 metres.

Though my sightings of P. carolae are few, it is probably a common species, as local residents affirmed.

My only record of P. lawesi for Tsuwenkai was a bird in female plumage that visited the bower in secondary forest mentioned above. My observations were made from a hide about three metres from the perimeter of the bower. A male P. carolae had been heard calling near the bower for about fifteen minutes before the female P. lawesi quietly and suddenly arrived at the bower. It hopped on to the cleared rectangular area of the bower, then on to a vine that curved low over the bower area. It remained at the bower for about one minute. After another seventeen minutes, a female P. lawesi, perhaps the same bird, quietly returned to the bower. This second visit lasted about one and a half to two minutes, during which time the bird quietly hopped about in an inquisitive manner on the floor of the bower and higher up in saplings overhanging the bower. The male P. carolae arrived at the bower ten minutes after P. lawesi had left and subsequently displayed. P. lawesi was not seen again.

Local informants recognize only one category of Parotia, which they name kiawol. However, their descriptions suggest that P. carolae and P. lawesi are lumped in this single species. The Maring people are on the whole knowledgeable naturalists and one explanation for their not recognizing two taxa of Parotia is that P. lawesi is uncommon. They therefore infrequently encounter this species and consequently have had little opportunity to compare it with the more familiar P. carolae.

Schodde and McKean question whether P. lawesi and P. carolae, potentially competing species, are segregated by habitat or altitude or both where they abut. Though my data are insufficient to answer this question they do suggest that the two are not segregated by altitude alone. In the Jimi Valley, however, P. carolae occurs usually in secondary forest. My observations suggest that behavioural strategies may not be enough to prevent some interest by female P. lawesi in the display of P. carolae and possibly even hybridization.

I would like to thank my wife and Lucien Yekwai of Tsuwenkai for help in the field. Research was partly funded by the New York Zoological Society and the Myer Foundation.

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16 June 1975.