(S), *M. benhami* (S); *Pachyornis mappini* (N), *P. elephantopus* (S); *Euryapteryx geranoides* (NS), *E. curtus* (N); *Emeus crassus* (N?, S); *Dinornis struthoides* (N, S?); *D. novaezelandiae* (NS), *D. giganteus* (NS), *D. torosus* (S). When this is compared with R. J. Scarlett's rationalisation of moa classification (1972, "Bones for the New Zealand Archaeologist," *Canterbury Mus. Bull.* 4) based on much practical experience without the help of a computer we find, not surprisingly, that Scarlett anticipated most of the conclusions (e.g. in *Anomalopteryx, Megalapteryx, Emeus* and in his treatment of *P. elephantopus, Dinornis struthoides* and *D. torosus.* Scarlett's more tentative suggestions for other species of *Pachyornis* and *Euryapteryx* also approached Cracraft's while his acceptance of North/South Island species pairs in *Dinornis (giganteus/maximus* and *novaezelandiae/robustus)* is only nomenclaturally different from Cracraft's recognition of North/South size differences within *D. giganteus* and *D. novaezelandiae.*

Even among flying birds, North and South Island populations generally differ subspecifically after about 10 000 years of isolation by Cook Strait, in plumage as well as size, though often with wide overlap. The apparently clear separation of *Dinornis torosus* and *D. struthoides* is comparable with that of *Mohoua albicilla* and *M. ochrocephala,* whereas the overlapping *dimensions* of *Dinornis giganteus* and *D. maximus* and of *D. novaezelandiae* and *D. robustus* are more like the subspecies of *Petroica* or *Philesturnus.* We can only guess whether these Moas (like *Apteryx australis*) differed in plumage as well as dimensions, but at least their degree of differentiation at Cook Strait was comparable with that of less mobile members of the Passeres.

Cracraft's paper makes a long overdue contribution to the treatment of Dinornithiformes as living populations. It will doubtless provoke further work and thought, for it is not quite the last word. Thank goodness !

C. A. F.

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Birds of Paradise — The World's Glamour Birds. *B.H.P. Journal* 2: 76.

An interesting contribution to the literature of these fabulous birds is a short article by W. S. Peckover. It is beautifully illustrated by his own colour photographs and two splendid paintings by Bill Cooper.

Those birds which have the brightest colours and gaudy display plumage are usually promiscuous breeders. A group of males display in a chosen tree and one is selected by a watching female. After mating she will be chased off to undertake nesting activities alone while he will continue his display with the other males "awaiting the arrival of the next adult female who has selected their display tree for her quick time mate."

Of the 43 species, five are black, male and female almost alike and these follow "normal" breeding patterns, with a pair bond lasting at least one season, and the male assists with nest building, brooding and feeding the offspring. "Ornithologists now believe that pairing

for breeding is a recent development while promiscurity is the 'old' way of living in the Bird of Paradise family."

Although huge numbers of birds are taken by natives by traditional means — shotgun shooting being heavily penalised — the native landowners protect the display trees which are used season after season. They "practice sensible conservation methods allowing at least one fully plumed male to survive at each display tree. So even the Lesser and Raggiana Birds of Paradise, the ones that are the most used in headdresses, are not endangered by traditional style hunters" (the chief threat is the replacement of the forest by agricultural land).

The article appears in the undated "*B.H.P. Journal,* 2.76," pages 35-41. The reviewer's copy was received in January 1977 from the Public Affairs Department of Broken Hill Proprietory Company Ltd., 140 William Street, Melbourn, Australia 3000. Copies may be obtained by writing to the editor.

J. M. C.

ABOUT OUR AUTHORS

ROBERT ("BOB") ST.PAUL came to New Zealand with his family from England when less than a year old and spent his school years at Moumoukai Valley in the Hunua Ranges. A sturdy youth, he left school very early and in 1912 went bushfalling and pitsawing, working from Awanui in the north, Wanganui in the west, National Park in the south and all about the King Country and western Urewera. After being a bush boss for a long time he went postsplitting independently. He is a brother of J. W. and E. St.Paul, whose names have appeared often in *Notornis.* Dr Gilbert Archey (later Sir Gilbert) met him at Tihoi, recognised his ornithological potential and enlisted him as a member of the Ornithological Society of New Zealand, getting him to send his daily bird notes to R. B. Sibson, who, when he went overseas handed him over to H. R. McKenzie, who put him on to monthly detailed charts. These charts were faithfully compiled and are a mine of information. In 1961 his health failed and he went to live at Waikino, still keeping a close interest in birds. His files are eventually to be deposited in the OSNZ library.

BRIAN GILL completed a B.Sc. (Hons.) degree in Zoology at Massey University in 1975, and is currently studying breeding of the Grey Warbler and Shining Cuckoo at Kowhai Bush (Kaikoura) for a Ph.D. at Canterbury University. Apart from bird-counts, he has also worked on the Whistling Frog (1973, *Proc. N.Z. Ecol. Soc.* 20: 31-4), and on skinks (1976, *N.Z. Jl Zool.* 3: 141-57) in the coastal Manawatu.

C. JOHN RALPH, a member of the OSNZ for several years, has recently joined the U.S. Forest Service as a Research Ecologist, studying forest birds in Hawaii, especially endangered species. These