"in-depth" treatment of some species and groups matched against the impossibility of writing much about everything, coupled with the frustratingly-useless maps, will limit the value of this otherwise fine treatise. For myself, I am more pleased to have subscribed to a set of Birds of the World (despite its limitations of authoritative authorship) but everyone to his taste. For those who like the "consumer" approach, value for money or best buy, 3 volumes of "Grzimek" at, say, NZ \$30 = \$90 while 108 weekly parts of Birds of the World at 55c each = \$59.40. Nevertheless I wouldn't mind a set of "Grzimek" on my shelf and I would certainly recommend it as a necessity for the National Library and the major public and university libraries throughout the country (even if only to acquaint the curious with the wonderful diversity of animal life). A coloured brochure on the series is available from Technical Books Ltd, P.O. Box 5174, Wellington, who will supply single volumes or sets to order.

E. W. D.

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MCPHERSON, L. B. Sounds of New Zealand Birds, Vols 2 and 3. Two 45 r.p.m. extended play records, PR 629 and PR 641. Christchurch: McPherson Natural History Unit, 1972. \$1.50 plus postage.

Les McPherson, who operates the McPherson Natural History Unit at P.O. Box 21-083, Edgeware, Christchurch, has produced two more discs in his series of sounds of New Zealand birds; and, according to information on the disc envelopes, he intends to go on with the programme.

This should please bird students who, for a reasonable price, might wish to acquire actual recordings of bird songs in preference to trying to figure them out from descriptions in field manuals.

Mr. McPherson's new discs contain the following:

## Volume Two

Goldfinch Paradise Duck
Tui Canada Goose
South Island Fantail Peafowl
[Rock] Pigeon California Quail
Erect-crested Penguin Spotted Shag

## Volume Three

BudgerigarChukorBlackbirdYellowhammerCrimson RosellaMallardBlack SwanBlack-billed GullGrey PartridgeGrey Warbler

Of these twenty, eleven were not made in the wild, but this should not be criticised as they are properly identified as to location. His Paradise Duck is one of these, and I heard sounds from the captive I'd never heard before though I've spent much time with the species. This is not unusual. The California Quail's crowing seems a bit different than in the wild. There are interesting sounds from the Chukor, but its characteristic loud crowing is not on the disc.

The Erect-crested Penguin, made in the wild, was exceptionally good, especially as it was taped from an open boat where one might expect its voice to be smothered by waves, wind and boat noises. The Grey Warbler's song is very loud and clear from a bird obviously close to the microphone, although the tape has a bit of low-frequency extraneous noise. Some over-recording can be noticed on louder portions of the Goldfinch and Yellowhammer, but others are good and quite interesting. Some purchasers may find these discs slightly different from what is in their neighbourhoods if they are not aware of the many regional dialects among New Zealand birds.

All of us who tape New Zealand birds have a long way to go before we catch up with Johannes C. Anderson who described some 70 different Tui vocalizations. Anderson may have been one of the world's first bio-acousticians as he searched about with pitchpipe and musical scorepad before the days of tape recorders. His initial studies were published in 1910 and 1912 in the *Transactions and Proceedings of the N.Z. Institute*. His 1926 book, "Bird-Song and New Zealand Song Birds" has long been out of print; but the knowledge of this early pioneering should stimulate New Zealanders to carry on his tradition.

Beginning ornithologists are mostly interested in birds' songs, their "identification of territory." Some students later become quite interested by birds' calls as they attempt to study what the birds are doing and how they communicate with one another. In such work it is, of course, necessary also to record the bird's conduct so that the call can be related to behaviour.

But with such a small market for bird discs, it would be impractical for Mr McPherson to publish all of a bird's songs, its regional dialects, and its calls together with descriptions of concurrent behaviour. However, if we could develop a central library of New Zealand bird tapes, with the songs and calls of each species on a separate reel, and data sheets for each tape, what a wonderful help it would be for advanced students, behaviourists, and those whose task it is to revise the "Field Guide"!

Mr McPherson is to be congratulated for continuing his contributions towards making New Zealand bird songs more readily available.

Wm. V. W.

[A review of the first record, Sounds of New Zealand Birds, Volume One, appeared in Notornis 18 (1): 67-68; 1971.]