because these species are usually expanding their ranges into the area or comprise individuals reaching it by "accident". The frequency of these events is approximately constant with time, whereas the periods of observation are doubling. But the rise in the number of new species with doubled time become significant well outside the time scale appropriate to the kind of investigation discussed in this paper, and can be ignored in practice.

The method outlined can be expected to give reasonably accurate results only when certain conditions are met. The ten days' observations must come from an unbiased coverage of the particular area, and weather conditions must be typical. If there is a marked seasonal change in the composition of species, the observations and the conclusions derived from them must be restricted to non-migratory birds. Comparisons between areas are appropriate only when these areas are approximately equal in size, and where the conditions of observation are similar.

Although the data in this paper are drawn from birds, there is no reason why the method should not be applicable to other animals.

ACKNOWLEDGEMENTS

I thank Mrs M. Grange and Dr W. G. Warren of this Institute for criticising a previous draft of this note.

REFERENCES

Fleming, C. A. 1953. Checklist of New Zealand Birds. Ornithological Society of New Zealand, Wellington.
Preston, F. W. 1960. Time and space and the variation of species. Ecology. 41: 785-790.

Forest Research Institute, New Zealand Forest Service, Rotorua. Manuscript received November 21, 1964.

Scrub Turkey at Chillagoe, Queensland.—The Chillagoe area, 120 miles west of Cairns, has a series of discrete limestone hills which rise as high as 200 feet above the surrounding plain. These hills are deeply dissected with sharp ridges and pinnacles of limestone forming a spectacular jagged outline. Sparse scrub occurs on the tops, contrasting with the open grassland of the plains between the hills.

While visiting the area on the 29th-30th April, 1964, in company with Mr Don Fitzsimon, of Mareeba, we walked over the tops of two such hills. On each we observed a pair of Scrub Turkey, Alectura lathami Gray. We were told by local residents that these birds occur on most of the larger hills in the district, but are not seen on the grasslands. As the hills are completely isolated from each other by open grassland, this suggests a series of small isolated populations, and further observation to ascertain whether this is so would be of interest.—ELERY HAMILTON-SMITH, 17 Helwig Ave., Montmorency, Vict.