

THE DATES OF ARRIVAL OF THE SHINING CUCKOO IN NEW ZEALAND IN 1953.

By J. M. Cunningham, Masterton.

SUMMARY.

The dates of arrival of the shining cuckoo in New Zealand in 1953 are recorded, and the data of 1952 compared. Comparison is made both district by district and also observer by observer for the same precise localities. While birds were earlier in some districts, a tendency is found for the earliest arrivals to be a little later in 1953, and also for the flood of arrivals to have been about a week later. It is suggested that most of the early arrivals are of odd birds, or small numbers only, which make landfall in any part of the country. They then make their way, perhaps singing as they go, to their chosen localities for breeding. The main migration may consist of much larger flocks and takes place about the end of September. Some references are also made to habits, including a widespread tendency for birds to fly into windows and stun themselves.

INTRODUCTION.

In 1952 I conducted a 'pilot' inquiry into the dates of arrival of the shining cuckoo (*Chalcites lucidus*) in New Zealand. The methods adopted together with the results, were published in *Notornis* Vol. 5.6:192-5. The scheme was repeated with modifications in 1953 and the results are here assessed and compared with 1952. As stated in the previous paper, it is felt that "annual recording in the same districts over a period of years is the method most likely to give us an adequate picture of the arrival of the birds in New Zealand."

METHODS.

The number of members of the Ornithological Society is still not considered sufficient to give adequate coverage of New Zealand even if all took part in the inquiry, and so once again resort was had to newspaper readers. Again, the help of regional organisers of the Society and some other members was requested. A letter from the writer was sent for publication, via these members, to 23 newspapers and periodicals in the Dominion. The letter requested readers to inform either the writer or the member named of the arrival of the cuckoo. It is surprising how many non-ornithologists do keep such dates from year to year, or at least notice the event. An attempt was made to check the validity of records by correspondence or personal contact as described in the previous paper. In addition, a letter was sent to all persons who had contributed useful reports in 1952, and a short request for information was inserted in *Notornis*, vol 5.6:184. As a result, 154 reports were received against 88 in 1952. Owing to the writer's departure overseas, all replies were not followed up as thoroughly as in the previous year, and it has not proved feasible on this occasion to separate the reports of which I am fully satisfied from those I see no reason to doubt. Therefore, a few erroneous records are doubtless included, but it is felt that these are at a minimum, because reports were more heavily culled. As doubtful records were not able to be followed up, they could not be taken as correct and 30 were in fact rejected, against five in 1952. Although a few of these were because of duplication (both the writer and the regional organiser being informed) most of these 30 were unsatisfactory in some respect, though had inquiries been made some possibly would have been proved valid. In this paper, therefore, 124 records are considered from 37 members of the society and 85 non-members.

SUMMARY OF FIRST RECORDS.

The following are grouped under dates from north to south. All reports are included but the earliest record from each major district is given in black type.

FIG. 1.
Localities of
Reports
Received
in 1952.

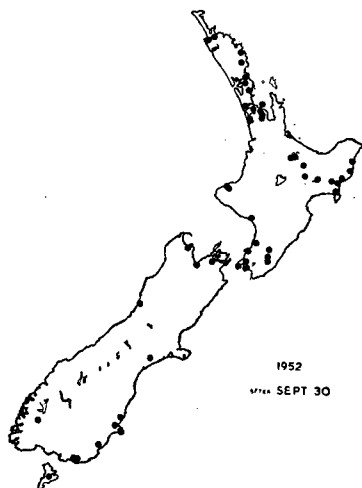
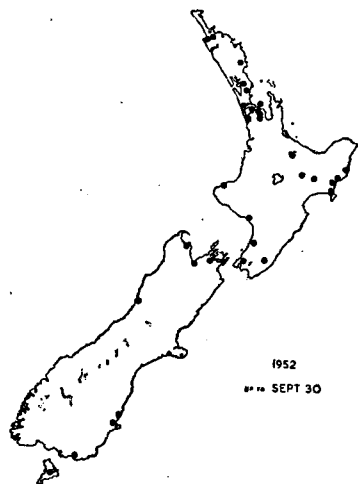
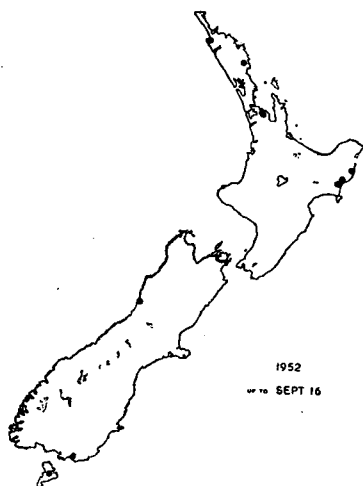
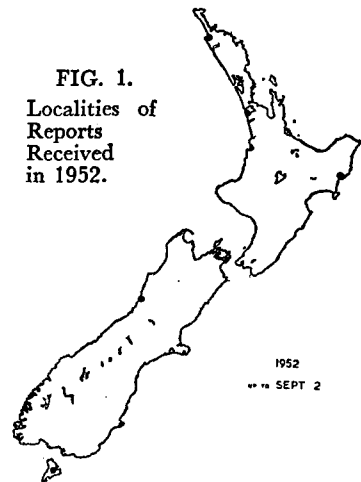
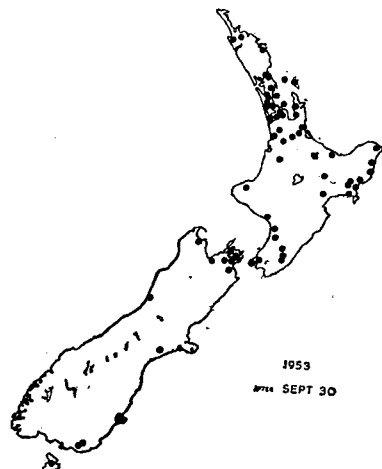
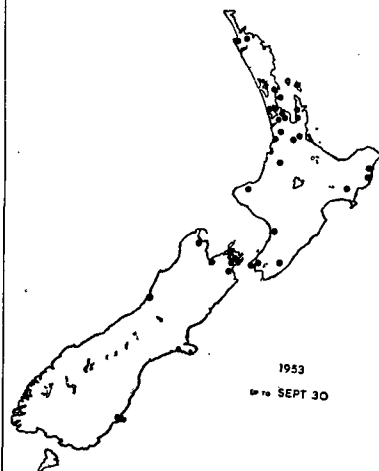
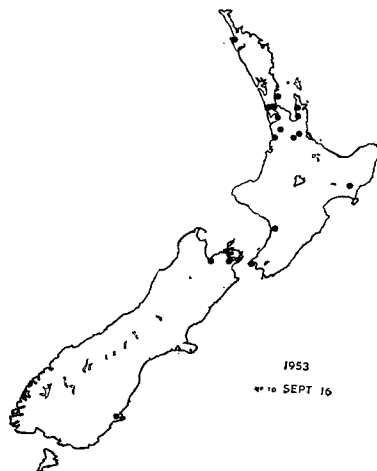
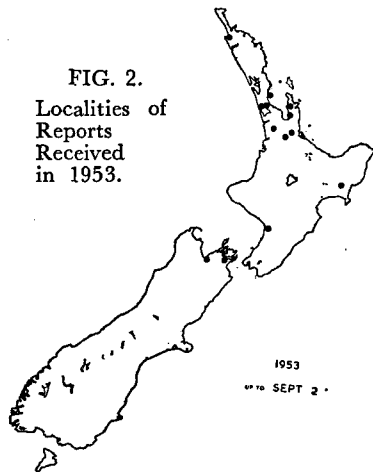


FIG. 2.
Localities of
Reports
Received
in 1953.



SHINING CUCKOO FIRST RECORDS

1952 UPPER DATE O

1953 LOWER DATE X

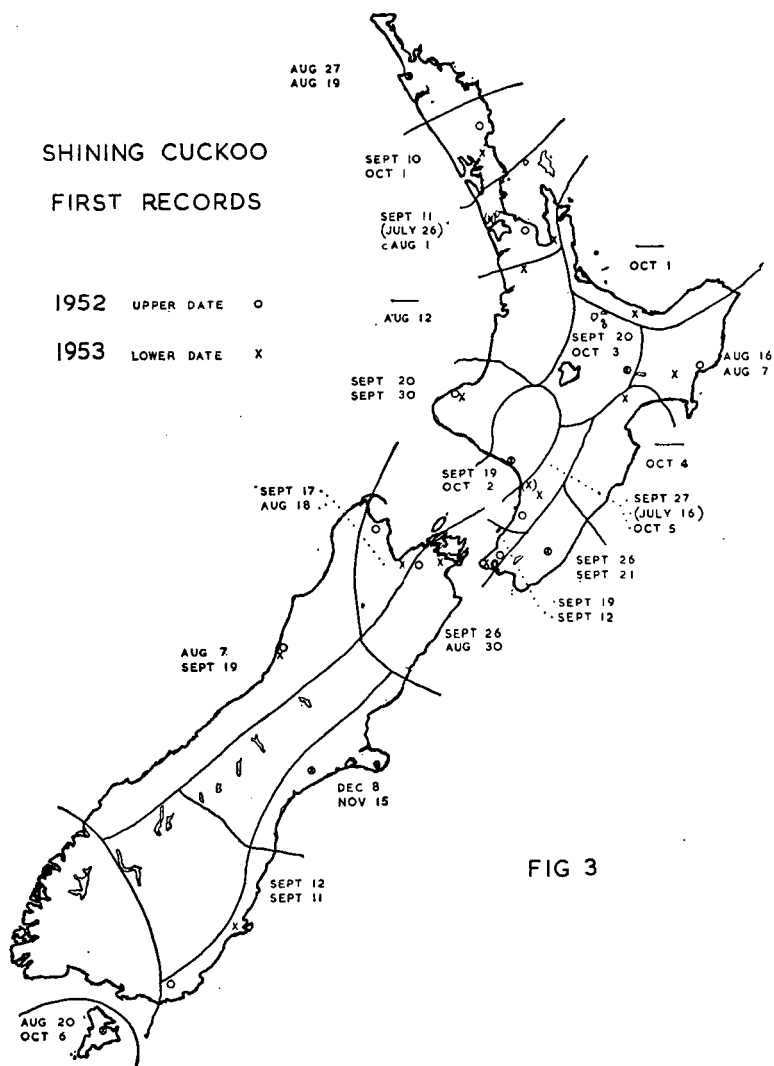


FIG 3

TABLE 1—1953.

July—16: **Bulls** (20 miles). 19: **Bulls**. 26: **Titirangi**.

August—c 1: **Thames**. 7: **Tiniroto** (c 25 miles S.-E. **Gisborne**). 11: **Whangaparaoa Peninsula** (26 miles N. **Auckland**). 12: **Huntly** (11 miles W.). 15: **Te Aroha**. 16: **Auckland** (**Mt. Eden**). 18: **Nelson** (**Hira**). 19: **Nelson** (**Upper Moutere**, 19 miles). **Ahipara**; **Morrinsville** (**Motumaoho**). 30: **Picton**; **Auckland** (**St. Heliers**).

September—2: **Coromandel**. 7: **Patumahoe**. 9: **Raglan** (**Mt. Karioi**). 11: **Dunedin** (**Maori Hill**). 12: **Wellington** (**Brooklyn**). 14: **Great Barrier Island**. 17: **Great Barrier Island**. 19: **Greymouth** (**Coal Creek**); **Clevedon**. 21: **Hinakura** (near **Martinborough**). 22: **Clevedon** (**Moumoukai**); **Tokomaru Bay**. 23: **Oruru** (6 miles); **Oruru**; **Warkworth** (**Mahurangi**); **Tologa Bay**; **Nelson**; **Takaka**. 24: **Auckland** (**Parnell**). 25: **Little Barrier Island**; **Clevedon** (3 reports). 27: **Tolaga Bay** (2 reports); **Anawra Bay** (N. **Gisborne**); **Clevedon** (**Moumoukai**); **Lower Hutt**. 28: **Tolaga Bay**; **Picton**; **Te Rawa** (**Pelorus Sound**). 29: **Te Kuiti**, **Kenepuru Sound**; **Kaituna** (near **Blenheim**). 30: **Auckland** (**Middlemore**); **Inglewood**; **Nelson**.

October—1: **Maungaturoto** (**Northland**); **Mangawhai**; **Waimauku** (29 miles N. **Auckland**); **Silverdale** (east); **Taneatua**; **Clevedon**; **Waiuku**; **Thames**; **Gisborne** (**Wharera**); **Huia Dam**; **Masterton** (**Maungarakei**); **Masterton** (**Blairlogie**); **Blenheim** (**Wharanui**); **Blenheim** (**Ruapara**); **Picton**; **Progress Valley** (**Waikawa**); **Titirangi**. 2: **Auckland** (**Epsom**); **Tokomaru Bay**; **Gisborne** (**Mangapa**); **Gisborne** (**Hangaroa**); **Wanganui**; **Picton**; **Quarry Hills** (**Waikawa**). 3: **Auckland** (**Remuera**, **St. Heliers**, **Henderson's Valley**); **Te Araroa** (**Whakaangi**); **Minginui**; **Masterton** (town and **Mt. Bruce**, 16 miles N.); **Rai Valley** (25 miles west **Blenheim**). 4: **Hamilton**; **Maungaharuru Range** (**Hawkes Bay**); **Manunui**; **Wellington** (**Botanic Gardens** and **Khandallah**); **Onamalutu** (15 miles W. **Blenheim**); **Haldane**. 5: **Titirangi** (3 miles W.); **Waimauku**; **Palmerston North**; **Lower Hutt**. 6: **Auckland** (**New Lynn**); **Lake Okataina**; **Canvastown** (32 miles N.-W. **Blenheim**); **Dunedin** (**Three-mile Hill**); **Stewart Island**. 7: **Auckland** (**Onehunga**); **Picton**. 9: **Frankton**; **Waihi**; **Nuhaka**; **Tuamarina** (**Blenheim**). 10: **Wellington** (**Karori**). 11: **Blenheim**. 12: **Auckland** (**Remuera** and **Hillsborough**). 13: **Wellington** (**Karori**); **Blenheim** (**Wairau R.**). 14: **Waiheke Island**; **Blenheim** (2 reports). 15: **Blenheim**. 16: **Whangaruru South**; **Masterton** (**Carter's Bush**). 19: **Wellington** (**Wadestown**). 20: **Blenheim** (**Tuamarina**). 24: **Waiheke Island**. 31: **Blenheim**.

November—11: **Thames**. 15: **Ashburton**.

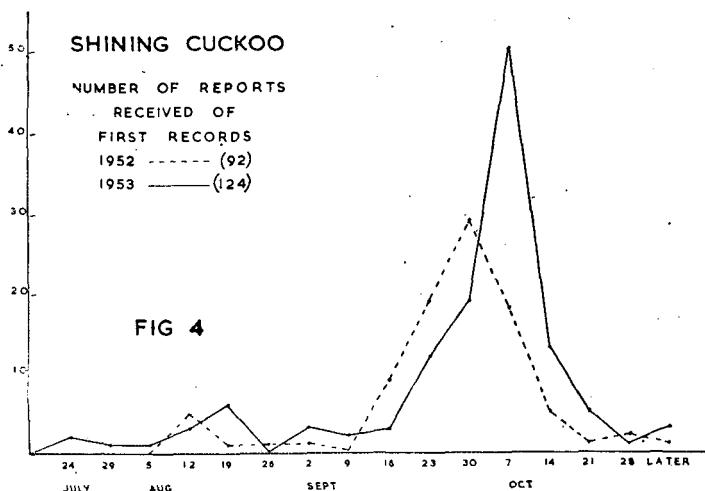


TABLE 2.—ADDITIONAL 1952 RECORDS.

September—19 **Lower Hutt**. 20: Minginui. 22: Auckland (Howick).
23: Waiuku. 26: **Hinakura**. 28: Clevedon. October—1: Mangawhai; 3:
Whangaruru South. December—8: **Ashburton**.

TABLE 3.—NUMBER OF REPORTS RECEIVED (All New Zealand)
for Each Week, with Respective Districts from which First Records
Came.

1952		1953	
Week ending			
July 22	0	2	(Manawatu)
29	0	1	(Auckland)
Aug. 5	0	1	Auckland.
12	5 Westland	3	Waikato, Gisborne-East Cape.
19	1 Gisborne-East Cape	6	Far North, Nelson
26	1 Stewart Island	0	
Sept. 2	1 Far North	3	Marlborough
9	0	2	
16	9 (& "several") North Auckland, Auckland, Coastal Otago	3	Wellington, Central Otago.
23	19 Rotorua-Taupo, Taranaki, Wanganui, Wairarapa, Wellington, Nelson.	12	Wairarapa, Westland.
30	29 Manawatu, Marlboro.	19	Taranaki
Oct. 7	18	50	North Auckland, Bay of Plenty, Rotorua-Taupo, Wanganui, Hawke's Bay, Manawatu, Stewart Island.
14	5	13	
21	1	5	
28	2	1	
Later	1 Coastal Canterbury.	3	Coastal Canterbury.
Totals	92	124	

DISCUSSION.

It is thought desirable to group arrivals in seven-day periods: in 1952 the first of these was taken as August 1 to August 7. However, in order that the data may fit in better with other data such as nesting, it is now considered that these weekly periods should commence on January 1. Therefore, weeks ending August 5, 12, 19, 26, September 2, etc., are followed. As far as districts are concerned, no division of New Zealand into ecological areas has yet been published. Until this is done, recourse must be had to artificial boundaries such as provinces, counties, etc., and the following districts have been chosen:—Far North, North Auckland, Auckland, Waikato, Bay of Plenty, Gisborne-East Cape, Rotorua-Taupo, Taranaki, Wanganui, Hawke's Bay, Manawatu, Wairarapa, Wellington, Nelson, Marlborough, Westland, Coastal Canterbury, Inland Canterbury, Central Otago, Coastal Otago, Southland, Stewart Island. These, it will be noticed, follow rather closely the areas covered by regional organisers of the society.

Table 3 shows the number of records for each week for all New Zealand and the respective districts from which first records came. The July records are in parentheses as possibly these (the Bulls occurrence was supported by a specimen) were of birds which had not migrated. 1952 records are reassessed with the additional records received and included for comparison with 1953. In neither year is there any justification for assuming that any distributional pattern is shown with the earliest arrivals, and Figs. 1 and 2 demonstrate this. In 1953, however, there is some indication that the arrival of the main migration stream was in the north.

However, the fact that there is a preponderance of North Island records may perhaps simply be taken as reflecting the much greater number of observers in that island. Fig. 3 shows how individual districts have varied in the two years, e.g., Westland, August 7 in 1952, September 19 in 1953; Stewart Island, August 20 in 1952, October 6 in 1953; North Auckland, September 10 in 1952, October 1 in 1953. This shows that, with the exception of Gisborne, localities having the earliest records in 1952 gave pride of place to others in 1953.

It was noticed that many observers stated the birds were a week or two later in 1953 than in 1952: accordingly, Fig. 4 is presented, and this certainly shows that the bulk of the reports were about a week later in 1953.

It is certain that the more cuckoos there are about, the more reports there will be, as the odd early arrival may be noticed by only one observer. Therefore Fig. 4 probably refers largely to the flood of arrivals of numerous birds rather than giving a comparison of individual birds. Let us, therefore, now examine records from the same observers in precisely the same localities for the two years, to see if there is any constant difference in the dates of first arrivals.

TABLE 4.—FIRST ARRIVALS.

	1952	1953	days different
Mrs. H. I. Cameron, Hinakura	Sept. 26	Sept. 21	5 earlier
J. E. Coulthard, Waiuku	Sept. 23	Oct. 1	8 later
F. J. & Mrs. W. Cuming, Waimauku	Sept. 18	Oct. 1	13 later
J. C. Davenport, Remuera	(Oct. 26	Oct. 12	14 earlier)
W. J. Gill, Ahipara	Aug. 27	Aug. 19	8 earlier
Miss A. J. Goodwin, Clevedon	Sept. 28	Sept. 25	3 earlier
L. Gurr, Nelson	Sept. 30	Sept. 23	7 earlier
Mrs. G. G. Hayter, Takaka	Sept. 17	Sept. 23	6 later
Mrs. M. E. Martin, Lower Hutt	Oct. 6	Oct. 5	1 earlier
Mrs. E. Mason, Canvastown	Sept. 26	Oct. 6	10 later
H. R. McKenzie, Clevedon	Sept. 28	Oct. 1	3 later
E. St. Paul, Moumoukai	Sept. 23	Sept. 22	1 earlier
J. W. St. Paul, Moumoukai	Sept. 28	Sept. 27	1 earlier
R. St. Paul, Manginui	Sept. 30	Oct. 3	3 later
Mrs. E. J. Schroder, Tologa Bay (Ti- tirangi Station)	Sept. 20	Sept. 23	3 later
M. E. Sepperell, Hamilton	Sept. 26	Oct. 4	8 later
Mrs. J. C. Sibson, Inglewood	Oct. 2	Sept. 30	2 earlier
I. L. Skelton, Tolaga Bay	Sept. 29	Sept. 27	2 earlier
Mrs. P. Soderstrom, Progress Valley (Waikawa)	Oct. 5	Oct. 1	4 earlier
F. W. Strumpel, Whangaruru South	(Oct. 3	Oct. 16	13 later)
H. G. Warburton, Oruru	Sept. 20	Sept. 23	3 later
F. O. Welch, Mt. Bruce	Oct. 7	Oct. 3	4 earlier
Mrs. K. O. B. White, Lake Okataina	Sept. 24	Oct. 6	12 later
Mrs. N. F. Wilkins, Tokomaru Bay	Oct. 6	Oct. 2	4 earlier
R. Wills, Ashburton	(Dec. 8	Nov. 15	23 earlier)
L. Wintle, Mangawhai	Oct. 1	Oct. 1	—
L. C. Wybrow, Owaka	Sept. 12	Oct. 4	22 later

Of the 27 reports available from the same observers in precisely the same places in both 1952 and 1953, three (in parentheses) are not considered as they are rather late in the season to refer to first arrivals in the district though there is no reason to doubt they represent the first birds in the observers' immediate area. Of the others, one was of the same date, 12 were earlier and 11 were later. The earlier reports varied from one day to eight days earlier with a total of 42, and the later ones varied from three days to 22 days later with a total of 91. It seems that if birds were earlier in any districts in 1953 generally it was by a few days only, while if they were later, it was by a few days in some cases but about a fortnight or more in others.

BEHAVIOUR ON ARRIVAL.

Many observers have given some information about the arrival of these birds, and the following refer to the most useful of these reports. Unless otherwise stated, the dates refer to 1953.

Turakina.—Some years ago, Mr. T. Andrews found several dozens of cuckoos near the mouth of the Turakina River. "They must have just landed for they were completely exhausted." The birds were seen about dawn in lupin near the coast.

Hinakura (Mrs. H. I. Cameron).—First heard September 21, fairly regular since October 6; not yet numerous October 29.

Waiuku (J. E. Coulthard).—First heard several October 1, some distance apart "showing that a considerable number of birds evidently arrived in this locality on the same day." They were heard about each day during October.

Ahipara (W. J. Gill).—The first bird was found exhausted on August 19 after three days of westerly gales, and he was able to manoeuvre it into an unoccupied hen run to protect it from cats. It stayed for two days.

Brooklyn, Wellington.—Mrs. P. D. Hall, who recorded the call on September 12, heard no more until September 24, when two or three birds sang, after which it was heard daily.

Canvastown.—Mrs. E. Mason heard it every day after October 6, whereas in 1952 birds were not heard for some time after the first.

Manunui.—J. W. Mayo heard them each day after the first on Oct. 4.

Blairlogie, Masterton (John Morrison).—First recorded October 1. Many birds were heard.

Inglewood.—Mrs. J. C. Sibson heard it on September 30, again on October 3, 4 and 8, after which it was heard several times daily.

Oruru.—H. G. Warburton states that both in 1952 and 1953 a bird was seen and heard daily after the first arrived. In both years the first bird landed in a tall tree, gave the distinct call, and then flew north, down the valley. After the first day, the bird was seen regularly to have a "beat" of about a quarter-mile diameter circle, within which its movements could be traced by its calls.

Tokomaru Bay.—Mrs. N. F. Williams notes that in 1952 the first arrival was on October 6: a single bird. Birds were in the locality in ones and twos daily after that. In 1953 she says the first bird on October 2 was alone and remained in the vicinity (written Oct. 3).

Silverdale.—L. M. Woods reports the first bird at Wade Herds on October 1 was by itself.

Haldane.—In 1952, on September 12, L. C. Wybrow saw three "in a very exhausted condition quite close to the coast. They showed no alarm and I walked to within several feet of them." In 1953 he heard the first on October 4, then October 6 and seven on October 8. By the 11th they were heard "in full force."

Thus, in some districts it appears that an odd bird will appear briefly and no more will be seen for some time. At other times, an odd bird or two will remain in the one locality for some time before being joined by others, while some reports are of birds not present one day being plentiful the next. There is some suggestion of individual birds having a preference for a particular locality, probably where they were hatched, and it seems more and more clear that birds are likely to make their first landfall anywhere in the country, but largely near the coast. In such cases if birds arrived singly or in small numbers, they would make their way to their "home" areas and might well be recorded on the way. It is probable that all the early arrivals are of such odd birds, or birds in small parties, but there can be no doubt that, as the season advances, considerable flocks reach the country and they may be found exhausted in large numbers.

The song is distinctive, consisting of a series of short, even and unhurried whistles of an ascending pitch (all commencing on the same pitch), followed by one or more descending notes. The call has a distinctive timbre about it enabling most observers to easily distinguish it from somewhat similar notes of thrushes and starlings with which it is confused at times. It may have a ventriloqual effect, usually gaining in intensity as it is uttered until the bird, at first thought to be some distance away, may be found to be quite close at hand. The number of upward notes may vary from the usual half dozen or so: the most I have counted is 51, but J. C. Davenport has recorded as many as 176. The phrase may be repeated at frequent intervals, and in some years the song may also be given by all birds in a particular district at a much greater speed. Their habit of calling at night, either settled or as they fly over, is, of course, well known. The note then seems to be always the downward slurs only. The song appears to me to be identical in all respects with that of the closely allied Australian bronze cuckoo (*C. plagosus*), which I was unable to distinguish by sound.

Opinions vary as to the song on arrival of the birds. Some observers believe the birds do not use the downward slurs, the final notes of the full song, until they have been here for some days. Others, however, have recorded either a single or several downward notes without the upward ones, from first arrivals, and yet others record that the full song is given immediately. I see no justification for statements that if a song thrush is heard "imitating" a cuckoo early in the season, that is proof that the cuckoo has been present for some days. Some observers tend to the view that birds may be silent for a few days after arrival, and they would then be difficult to record. It must be stated, however, that there is yet no evidence in support of such a view. Probably the truth is that birds sing on arrival (or after having recovered from their immediate exhaustion, which would be a matter of a day or two only), and continue in varying degrees of completeness of song as they make their way to their chosen localities. This would satisfactorily account for the odd birds heard once and not again in an area until numbers arrive to stay, and fits in with all the observed facts.

PREVIOUS YEARS' RECORDS.

The following series of records refer to the same localities in the case of each observer:—

Hinakura (Mrs. H. I. Cameron).—1943, Sept. 26; 1944, Oct. 4; 1945, Sept. 19; 1946, Sept. 11; 1947, Oct. 1; 1948, Sept. 25; 1949, Sept. 25; 1950, Sept. 20; 1951, Sept. 23; 1952, Sept. 26; 1953, Sept. 21.

Hamilton (M. E. Sepperell).—1946, Oct. 9; 1947, Oct. 9; 1948, Oct. 6; 1949, Oct. 4; 1950, Oct. 2; 1951, Oct. 8; 1952, Sept. 26; 1953, Oct. 4.

Mangawhai (L. Wintle).—1948, Oct. 4; 1949, Oct. 8; 1950, Oct. 10; 1951, Oct. 4; 1952, Oct. 1; 1953, Oct. 1.

OUT OF SEASON RECORDS.

It is widely believed that odd birds remains in New Zealand through the winter. Two of the following must refer to such cases, but it would be desirable to have more such records with actual dates, and also to know if birds sing on such occasions.

Hinakura.—Mrs. H. I. Cameron saw one in June, year not recorded.

Waiuku.—J. E. Coulthard saw what may have merely been a late bird on March 8, 1954, in stormy weather. No birds had been recorded since the previous January.

Bulls.—The birds reported July 16 and July 19 1953 by K. W. Dalrymple (see section following) may not have been newly arrived migrants.

Wanganui District.—I. H. Clark states he has heard these birds in mid-winter.

FLYING INTO WINDOWS.

The curious propensity shining cuckoos have of flying into windows and stunning themselves does not appear to have been recorded before. The first such case drawn to my notice was some years ago when Mr. T. A. Cunningham, of Masterton, found a bird beneath a window. (I think he had actually seen the bird fly into it.) This bird, which was killed by the impact, had flown into the window which was under a verandah, and, from the outside, looked dark with no noticeable reflection of trees to attract the bird. Since then I have heard of two or three similar cases but the following, received during the inquiry, are the only ones I am able to document.

At Hinakura, Mrs. H. I. Cameron, writes: "On three occasions shining cuckoos have collided with a large sunroom window. The first time I was in the room and heard the thud. On rushing out I picked up the bird which was stunned and in half an hour he had recovered enough to fly away. Unfortunately, on the two other occasions both birds were dead when discovered. It seems strange that no other bird has met its end this way. There was a large ash tree (since cut down) a few yards from the room and my theory is that the cuckoo saw the reflection of the leaves and with its powerful flight went headlong into what it thought was open air."

Mr. K. W. Dalrymple, writing from Bulls, August 17, 1953, tells of a bird stunning itself, and as his letter is of general interest it is also quoted directly: "On July 19 a friend of mine and his wife came to see me and said that a few days before they had seen a strange bird. It was hopping about in an apple tree in their garden, close to a window, so they were able to have a good look at it. Their description was of a shining cuckoo, but they did not know the cuckoo. I turned up the plate in the second edition of Buller. As soon as they saw it they said, 'That is it.' Just then I had a call to go outside to another room with a french window entrance. As I was about 7 or 8 yards away from it, a bird flew just over my head and under the verandah full tilt into the top window, and fell stunned on its back just in front of me. I picked it up—a shining cuckoo! Taking it to my friend and his wife, they both said at once, 'Where did you get that? That is the bird.' It gradually recovered, and after a few minutes was able to fly away."

From Blenheim, Mrs. O. L. Watson says: "I have twice known these birds to fly against a closed window. When in the garden, I heard a bang on a window close at hand. On looking up I saw a shining cuckoo on the verandah beneath the window. It appeared momentarily stunned but soon flew off."

That is seven such cases and it is difficult to be sure of the reason for them. In three cases the window was under a verandah, but in another the window was on a sunporch and presumably unobstructed. Cases are on record of birds such as blackbirds apparently attacking their reflections in windows and silvereyes sometimes stun themselves on windows, usually when disturbed suddenly while feeding nearby. The cuckoos' habit seems to be in a different category for which I can offer no explanation.

AN INJURED BIRD IN A CAGE.

Another item of interest is the keeping of a bird in captivity for some time, and I quote a letter from Mrs. N. F. Wilkins, of Tokomaru Bay, who once found a shining cuckoo with an injured wing. To protect it from cats she caged it. "At first it was very spiteful, rather than timid, and screeched and pecked at my hand, but soon became tame, and would sit on my finger while eating leeches off the leaves which I held. To satisfy its enormous appetite, I was forced to feed a few worms to supplement the leeches. They were not relished, but eaten. Slaters, or woodlice, were also fed to it but these were very 'third favourite.' When the bird could fly short distances, I released it on a pear tree. For a week it remained in the proximity and would come to me when I whistled to it, and drink from a dish. It was possible that it remained longer, but I lost sight of it amongst the numerous trees."

ACKNOWLEDGMENTS.

Grateful thanks are offered here to those members and regional organisers who collected and examined records in their areas. Particular mention must be made of B. D. Bell who forwarded 19 reports, J. C. Davenport (43 reports), and Mrs. P. J. Taylor who sent 11 reports. Acknowledgment is also made to all who contributed information in this essentially co-operative inquiry.

AN OBSERVATION ON SILVEREYES.—On October 31, 1954, I found a silvereye nest which was in an ideal position for observation. This nest, situated nine feet from the ground in a young miro tree, was almost entirely built of moss, horse-hair and spider webs. The nest contained three pale blue eggs. The first two eggs hatched about the same time before 4 p.m. on November 1 and the third egg hatched 24 hours later. A silvereye remained sitting for about a day after the third egg had hatched and on leaving the nest both adults made several trips to remove eggshells and excreta. On the tenth day in the nest the young were being fed about 263 times a day over a period of 14 hours. Visits were paid by both adults on an average every three minutes. Sometimes the chicks were fed twice in five seconds and on one occasion they were not fed for over 20 minutes. The adults, which remained at the nest for only ten seconds on each visit, fed the chicks on flies and caterpillars which were already broken into small pieces. The chicks were first fed at about 5 a.m. and last fed when the adults retired at 7 p.m. Some time before noon on November 13, the young left the nest, and supposing that the first egg hatched at noon on November 1st, the nestling period would not be less than 11 days 12 hours or more than 12 days. However, it is certain that the nestling period was almost exactly 12 days. At 5 p.m. on November 14, the three chicks were flying well, when observations ceased.—David Medway, New Plymouth.

INFORMATION WANTED ABOUT THE KAKAPO.—The kakapo is now a very rare species. Before active steps can be taken for its conservation as much information as possible must be obtained about its past and present distribution. A paper is being prepared on this subject and the author would be grateful for data which may be in the possession of members. Most of the readily-accessible literature has already been searched; what is particularly wanted now is first-hand information of birds seen or heard, references to anyone known to have seen them of recent years or in the past, and references to any accounts of distribution of the kakapo in out-of-the-way literature or diaries that members may know about. Please get in touch with G. R. Williams, Wildlife Division, Dept. of Internal Affairs. All assistance will be acknowledged.

BLACK-BACKED GULLS DISPOSE OF ENEMIES BY DROWNING.—Mr. A. L. Nugent witnessed, at Whangaroa, a savage encounter between a mated pair of black-backed gulls (*Larus dominicanus*) and a harrier (*Circus approximans*). The harrier accidentally dropped a partly consumed young rabbit into the sea near the shore. It seemed unable or unwilling to pick it up from the water. The two gulls took charge of the rabbit, gradually got it ashore and fed from it, each giving the other a turn as is usual with mated birds of this species. The harrier circled for some time, then made a sudden descent, frightened the gulls, seized the rabbit and rose with it. The gulls quickly rallied and made diving attacks in such a manner as to purposely force the harrier away from the land and over the sea, where it again dropped its prey. This time the gulls took the carcass into shallow water and fed on it, not allowing it to strand in case the harrier should be able to pick it up as before. After much waiting on the cliff-top, almost invisible, anger apparently overcame the harrier's hope of the gulls forgetting its presence and it plunged sharply downward to the attack, fastening its talons into the wings or shoulders of one of the gulls