

THE OLIVE-BACKED ORIOLE IN SOUTH AUSTRALIA

by H. W. CROUCH

SUMMARY

The Olive-backed Oriole (*Oriolus sagittatus*) nested at Belair in 1968 and 1969. This is the first recorded breeding of this species for South Australia.

Regular observations enabled many aspects of the call, plumage and breeding to be recorded.

There appears to be very little factual information recorded about this species in the Australian literature.

All known South Australian records of the species are listed. These do little to assess the true status of the species in S.A.

Records cover every month of the year except, apparently, May, and all are from the Adelaide Plains and adjacent Mount Lofty Ranges, the Murray River and the Coorong.

INTRODUCTION

Upon arriving home from work on October 11, 1968, I was greeted by an Olive-backed Oriole (*Oriolus sagittatus*) singing from a eucalypt by the front door. My wife and sons had heard it earlier and had led the bird to its present position by replaying its call from a tape recorder—Bird Watching De Luxe!

As my family and I are familiar with the calls of all the local bird species I am confident that the loud and distinctive call of the oriole was recorded and played back within a very short time of its arrival in the area. The chances of a rare species establishing territory for the first time in the garden of a bird observer who is able to recognise it are remote.

The bird took up residence in a steep gully behind our home at Belair, a southern suburb of Adelaide at an altitude of 900 ft. The vegetation is open forest, mainly Peppermint Gum (*Eucalyptus odorata*), with lush undergrowth, and a dry watercourse covered with introduced olives and hawthorns.

When the call of the oriole was played back the bird was quick to investigate, and responded with extra song. There is the interesting possibility that this in turn may have been responsible for attracting a mate into the area.

When the tape recording of its song was played back the bird would appear within seconds; but on following it or searching in

the direction from which it came I was not able to find a nest. I also concentrated on the vicinity of its favourite song perch, which was in the topmost branches of the tallest eucalypt, but to no avail. It was not until the young had left the nest that I found two of them in the dense hawthorn thicket at the bottom of the gully. This was on November 23. They were first seen within a few feet of a rough, untidy nest, recently constructed and used, made of twigs, and set in a hawthorn. At the time I assumed this to be the nest of the orioles, but I now consider this not to be so. Two, possibly three, young were seen over a period of ten days.

At no time during 1968 were both adult orioles observed at the same time and as the sexual difference noticed in 1969 was not then realised, which adult was observed at any time was not known.

Condon (1962) considers the Olive-backed Oriole rare in South Australia, and as there is no previous record of its having nested in this State I was disappointed at not having found the birds actually nesting. However, on July 25, 1969, I again heard the distinctive 'Oriole' call. This time I did not play back its calls as I did not want to stimulate it to abnormal song as I had done the year before.

In the account below the restricted observations I was able to make in 1968 have been coupled with the fairly detailed notes made in 1969.

NESTING

The birds nested twice in 1969. Both nests were built within 50 yards of each other and in the area where the fledgelings were seen the previous year. There was therefore almost certainly a relationship between the birds of both years. The first nest was built on the extreme outer branch of a eucalypt, 30' above the hawthorn thicket, which at this time of the year was devoid of leaves.

The start of the nest was seen on August 30, 5 weeks after the male had taken up territory. On this day, I first noticed the female, and as the nest had only just been

started it is possible that she had only recently arrived. The male was seen to display at this time by dropping the wings and trembling.

The nest took 14 days to complete, and consisted of a deep grass bowl, firmly fixed to a horizontal fork. On windy days it was tossed around so violently that it would seem the bird must be thrown out, but the depth of the bowl safeguarded against this. The nest was not seen being constructed. The female was the only bird seen to brood the eggs. Near the end of the brooding period it was common for the male to alight on the side of the nest and watch the eggs for a moment before flying off.

The 3 eggs hatched after 17 days, and both parents fed the young by regurgitation for the first few days.

No excreta was present in this nor in the second nest. Four days after the young had hatched I observed the male edge the female off the nest, and both disappeared into the thicket, where, judging by the noise copulation took place.

I did not tape record this occurrence, but it is interesting to note that on a previous occasion whilst recording White Browed Babblers (*Pomatostomus superciliosus*), a pair copulated with a similar amount of noise. On playing back the sequence the babblers went through the same actions again. I repeated this playback twice with the same result, before desisting out of a sense of decency.

On the 15th day after hatching, the nest was found to be empty. The female was observed with objects in the bill, and on following the bird I was led, not to the juveniles as I expected, but to the start of another nest. This time it was built approximately 10' from the ground on a horizontal fork of hawthorn.

The female was the only bird seen building the nest, and it appeared almost frantic in its haste. In the two hours from 1400 to 1600, I estimated the nest to be half completed. However, more was added to the bottom over the next three days, until a loose tail appeared. This was also noticed on the first nest, but was eventually blown away. The 'tail' of the second nest was finally wrapped round a twig. Both birds would defend the first nest whilst the second was being built, but after about three days they lost interest in the first nest.

The differences in nest construction were quite marked. The original nest a 'copy-book' type as described by North⁽⁶⁾ was supported by wrapping grass round the horizontal twig, then intertwining it in the body of the nest. The maximum number of turns noticed was two.

There was no string at all in the first nest, but in the second, string was the main supporting material. Approximately 20 pieces of string of varying lengths were used, each piece wrapped tightly round the twig many times. One piece could be seen to be wrapped round at least seven times, before being intertwined with the body of the nest which consisted of fur and cobwebs as well as grass and bark.

The almost exclusive use of string to support this nest is a puzzle, and as there were many different types of string, it must have been carried from several sources, none of which were apparent in the immediate vicinity.

The reason for the change to another site may have been due to the disturbance I undoubtedly caused, but it was noted that when the first nest was built the hawthorns were without leaves. They had just started to come into leaf as the second nest site was chosen.

It was whilst I was watching the new building operations on the third day that I was amazed to see the male feeding a fledgling which I had supposed to have been the victim of a predator.

The very quick double nesting may have been due to the abundant food supply, for the district was suffering a plague of Gum Leaf Skeletonisers (*Rosilea lugens*). These small hairy caterpillars attacked every eucalypt in the area, causing considerable defoliation, and eating off the new shoots as they appeared.

The food supply for the juvenile orioles presented no difficulty, for the male simply picked the caterpillars off nearby gum leaves, and shovelled them straight into the open mouth.

There is at least one other record of orioles feeding on similar pests⁽⁷⁾.

It seems unlikely that one pair of orioles could control the number of these caterpillars that abounded, but by November 9, when the second brood had hatched, I noticed that new shoots were appearing on the Eucalypts without being eaten, and the

number of new shoots were greatest nearer the nest. By November 30, the skeletonisers were back to their normal numbers—odd groups attacking new growth 3' from the ground.

The new nest had 3 eggs within a week—2 hatched after 17 days. Three days later the addled egg was dislodged to the ground, and one nestling was found dead near the broken egg.

Perhaps the nestling was killed whilst the parent was trying to dislodge the bad egg from the deep bowl of the nest (the nest measured over 2" from the bottom of the bowl to the rim).

The remaining chick left the nest after a further 17 days, and though the birds could be heard making an occasional call, the camouflage of the young oriole was too good for me to locate it.

EGGS

There were three eggs to each clutch, but the eggs of the second clutch, whilst retaining the general base color of cream, were very much heavier in the markings.

The first clutch had brown 'pin' spots, whilst the spots in the second were up to 4.75 m.m. diameter.

NESTING SUMMARY—1969

	Time Lapse
25/7 Male oriole first noticed	
30/8 Female oriole seen; start of next observed	5 weeks
12/9 Nest appeared complete	18 days
13/9 Female sitting	20 days
20/9 Three eggs seen	
1/10 Three eggs seen	15 days
2/10 Male and female feeding young	
5/10 Possible copulation	
16/10 Three young seen in nest	
17/10 Nest empty	1 day
18/10 New nest commenced by female; both nests guarded by both adults	
21/10 First nest no longer cared for	4 days
22/10 Second nest complete — no eggs	
25/10 Male seen feeding juvenile of first brood	20 days
26/10 Three eggs seen in nest	
10/11 Two eggs, one nestling	
11/11 One egg, two nestlings	
14/11 One addled egg and one nestling on ground	11 days
22/11 Eyes of fledgeling open	
28/11 Nestling still in nest	7 days
29/11 Nest empty	
1/12 Young oriole heard in thicket.	

ESTIMATED SCHEDULE IN 1968

11/10	Male oriole sighted	
—	Estimated nest building	7 days
—	Estimated incubation	19 days
—	Estimated nestling period	17 days
23/11	Juvenile orioles sighted just out of nest.	

PLUMAGE

The species is named in the vernacular for the lovely olive sheen on the crown, back and base of tail feathers of the adults. The abdomen and breast are cream vividly marked with black 'tear-drops' (or 'arrow-heads'—hence 'sagittatus'), which close in at the front and merge into a grey. The olive tint of the Belair male was deeper than that of the female, and there was a faint olive smear on the cream of the breast feathers, so that the black marks were not as contrasting as those of the female. Both adults had red irides.

The bill of the female was brownish black; that of the male an almost translucent flesh pink. The sexes were distinguished by the fact that only the black-billed bird built the nest or brooded.

The juveniles showed no olive tints, but all dorsal feathers were grey edged with rufous. The breast was very contrasting in cream and black, yet nevertheless providing a very effective camouflage when seen against a leafy background. The eyes and bills were black.

A feature common to all plumage phases was the large oval white spots on the inner web of all but the two central feathers of the tail. The spots decreased in size towards the centre. They gave a white flash across the tail when the bird was seen flying overhead.

The difference between male and female bill colouring, and the transition plumage between juvenile and adult interested me; I thought these would be easy matters to check, but such was not the case, and the somewhat vague references are sometimes contradictory.

Of 17 skins examined at the Adelaide Museum, only one bill colour was recorded as pink. This was taken in Queensland in November, 1915. All other bill colours were recorded as either black or brown. Most skins had rufous edging on the feathers, and so were possibly immature.

Gould⁽³⁾ does not mention any difference in bill colour, but gives the juveniles of 12

months as having "all wing feathers except the primaries margined with sandy red."

Gogerly⁽⁴⁾ states that he was confused with the colour of the bill of the oriole, as he had never seen a black billed oriole nesting. He goes on to say that a friend of his hand-reared an oriole, and the iris and bill changed from black to red at the third moult, i.e. two-years-old. The plumage also took on a brighter tint, and it was more clearly pencilled on the breast.

This is not as the Belair birds appeared. The female and juveniles had the clear pencilled breast, and the female bill was not red.

Mathews⁽⁵⁾ describes two adult male Olive-backed Orioles, one with bill "dark horn" and eyes "dark umber," and the other "eyes light red, bill fleshy brown. Adult female similar to adult male. Nearly adult female—eyes black, bill brownish-red."

North⁽⁶⁾ makes no mention of bill or eye colour.

No further references could be found to this very distinctive feature of the bird.

It is of course possible that the Belair female was a second year bird and that both sexes have pink bills when fully adult.

FLIGHT

Undulating, almost like that of a cuckoo.

CALL

The male was the dominant songster and was always heard at first light. When territory was first selected the song was loud and long. Its frequency was influenced by the weather; on bright sunny days it could be heard practically continuously, whilst on wet windy days the rate subsided to an odd call every fifteen to twenty minutes.

The typical call can best be described as 'oriole,' but slight variations occurred such as 'ori-oriole,' 'ori-oly-oriole' and 'ri-ole.' 'Mimicry' was practised by the male from its song perch during continuous singing. However, by erasing the 'oriole' type calls from a tape recording, leaving only the 'mimicry,' no two of a large group of bird observers were able to agree as to the calls represented by the 'mimicry.' This would be an interesting experiment to perform with other mimics, for I feel that observers in the field sometimes consider as mimicry items of a bird's own natural song.

The female's song was similar to that of

the male but not as frequent nor as sustained.

After mating, and as nesting progressed the calling rate subsided, but fine sunny days were still conducive to sustained song, interspersed with 'mimicry' which was interwoven with the typical 'oriole' call.

When disturbed from the nest at the beginning of brooding both birds made short 'oriole' calls interspersed with a scolding cry something like that of a wattle-bird. When incubation was advanced (10 days or so) and until after the young had hatched the birds were much more aggressive and gave an additional call—a loud 'brrr,' and would swoop repeatedly to within inches of the intruder.

If held in the hand an oriole would utter a distress call much like that of a Starling in the same situation.

DISTRIBUTION

The Olive-backed Oriole is one of 34 members of the family Oriolidae whose main distribution centre is Indonesia, whence they have spread westwards to India and Africa, and southwards to Australia. The present species occurs in New Guinea and near-coastal Australia, in the latter ranging from the Kimberley Division east to Queensland and south, then west to southern South Australia. There are no records west of Saint Vincent Gulf nor north of the River Murray in the latter State. It inhabits forest areas generally, preferring the tree-tops of the big timber where it is more often heard than seen.

The only other Australian species, the Yellow Oriole (*Oriolus flavocinctus*) is confined to the far north of Australia, the Aru Islands and New Guinea.

PREVIOUS SOUTH AUSTRALIAN RECORDS

(In chronological order)

Anon., 'Extracts from old minutes of monthly meetings,' *S. Aust. Orn.* 19 (1948) 20.

'J. W. Mellor—exhibited a skin shot at Reedbeds, the second for that locality (Minutes, March, 1901).

'J. W. Mellor—specimen exhibited from Reedbeds (Minutes, 10-3-1905).

'S. A. White—noted at the Reedbeds during winter; the stomach of one bird col-

lected contained fruit and no insects. (Minutes 30-7-1915).

Mathews, in *Birds of Australia* (1910-1927) quotes a letter from Captain S.A. White stating that the oriole sometimes comes to South Australia, but does not stay for long. Mathews quotes Edwin Ashby as having seen 'two skins of these birds killed near the reed beds' and also as having seen it near his home at Blackwood. (The Ashby home is only one mile from the present sighting).

White, Capt. S.A., *S. Aust. Orn.* 2 (1916) 195, at the monthly meeting of June 30, 1916, '... drew attention to the unusual numbers of Australian Orioles this winter upon the Adelaide Plains.'

White, S.A. *Ibid.* 3 (1918) 221, at the monthly meeting July 26, 1918—'3 Australian Orioles were seen on 18th and 19th July, 1918.' (Presumably at Fulham.)

White, S.A. *Ibid.* 4 (1919) 114, in 'Birds Recorded from the Early Days up to the Present Time for the Reed Beds District' 'Visits the district occasionally in Autumn but it does not stay too long.'

Mellor, J. W. *Ibid.* 8 (1926) 223, in 'Ornithological Notes': Lockleys area, February, 1926, 'On the 22nd a loud and long musical song from the top of a large Moreton Bay fig tree enabled me to locate an Oriole (*Oriolus sagittatus*). These birds occasionally visit us, but are by no means common, and as I have heard their sweet, liquid, warbling notes on several occasions lately, I presume the birds are staying with us for a time, at any rate.' *Ibid.*, p. 282, 'The Oriole (*Oriolus sagittatus*) that I noted at the end of last month was still singing during the beginning of March.'

Sutton, J. *Ibid.* 9 (1928) 157-8, in 'Monthly proceedings September 1927' '... reported that for the first time he had seen an Olive-backed Oriole (*Oriolus sagittatus*) at Netherby. It arrived about 9.30 a.m. on 12th September and was singing for some minutes. The Yellow-winged Honey-eater (*Meliornis novaehollandiae*) and a pair of White-plumed Honeyeaters (*Meliphaga penicillata*) were greatly excited by the strange call. A Noisy Miner (*Myzantha melanocephala*) also flew into the big gum-tree, as if to enquire. After staying about fifteen minutes the Oriole flew away in a northerly direction. Mr. J. W. Mellor exhibited the following specimens of the Oriole

taken at the Reedbeds:— February, 1901, 1 male; February, 1905, Male eating the fruit in a fig tree; August, 1910, Male eating ivy-berries; April, 1912, Female eating the fruit in a fig tree.'

Simpson, A. A. *Ibid.* 252, in 'Bird Notes,' 'An Olive-backed Oriole . . . about the trees on his property at Burnside on 12th March, 1928.'

Jarman, Howard E. A. *Ibid.* 13 (1935) 121, 'A bird was about the Botanic Gardens from 4-7-34 to 22-8-34, and one was noted in the Botanic Park on 14-6-35.'

Terrill, S. E. and C. E. Rix, *Ibid.* 19 (1950) 98, 'There is an unpublished record of two birds seen at Renmark in November, 1934 (C:E.R.).' Boehm, E. F. *Ibid.* 21 (1954) 48 regards this record as 'questionable,' as apart from this record '... there is not any record of this species in South Australia during the spring.' In the light of more recent records covering all months of the year, except, apparently, May, there now seems no reason to doubt Rix's record.

Glover, Brian (unpublished), 'Heywood Park:— one on 6-6-49; seen daily until 23-6-49 (my last visit); continual chattering by White-plumed Honeyeaters. Belair National Park Dam:— one on 2-9-52; not molested by Red Wattlebirds. Botanic Park:— during the 1950's R. Schodde and others recorded orioles on at least two years. Hawthorndene:— heard calling on 30-10-62; recorded the same day (I think) by Dr. and Mrs. P. Reeves about a half-mile further west.'

Mack, K. J., (unpub.), one captured and photographed (see p. 194), Berri Experimental Orchard, on 14-10-64.

Eckert, J., *S. Aust. Orn.* 24 (1966) 107, 2 at Langhorne Creek, 29-8-65.

Cornish, D. M., *Ibid.* 25 (1968) 44, one on 17 and 20-8-66 at Glossop. Call recorded on tape.

Le Page, Ron, *S.A.O.A. Newsletter*, March, 1968, three, one mile south of Waikerie, 10-1-68.

Cowell, Ian, *Ibid.*, one, two miles southwest of Waikerie on 14-1-68.

Waterman, Max, *Ibid.*, June, 1968, two immature birds banded at Policeman's Point (Coorong) on 24-2-68.

Glover, Brian, (unpub.), 'Hawthorndene: recorded from 7-10-68 almost daily until at least 21-10-68; also recorded during December, 1968, and one on 27-11-69.'

Gregory, M. *S.A.O.A. Newsletter*, March, 1969, at least two heard on the evening of 12-1-69 at Loxton.

Cox, J. B. (in letter to the Hon. Secretary), one on 16-6-69 at Mannum. Mr. Cox's field observations and description are so thorough that I am including them in full:

This bird was seen in fairly thick foliage in a garden next to River Murray, between the Ferry and the Sanctuary.

First noticed in flight among branches 40 feet high, and was very difficult to locate. The flight was swift with erratic movements and opening and closing of wings, usually seen dropping from behind leaves and in flying to another branch, swept up to it in a glide.

When seen landed the general appearance was of a fairly large bird, heavily streaked below and greenish above, the underparts appearing dirty in colour.

The bill was a pale pink-flesh colour; lores dark as was area around eye. Head and face greenish with a few dark streaks on crown; ear-coverts a clearer green. Back and wing coverts dark green, slightly streaked, rump lighter (noticeable particularly in upward sweep in flight), tail dark green, lighter tips to feathers.

As most views were of the underparts the closed wing and back were not noted so much except in flight. Underparts heavily streaked and extending from bill to ventral region where streaks were sparser; these streaks were on a paler green from throat to flanks but with an almost pale buffy area between legs and belly, although undertail coverts appeared darker. The legs appeared dark.

This excellent description corresponds in all details to the male oriole observed at Belair.

It is significant that most of the early records of this species were near the homes of the observers. It is certain that (a), many orioles that visited South Australia were never recorded by bird observers, and (b), that orioles have been observed but the records not published. It is therefore impossible to deduce from previous records how regularly Olive-backed Orioles visit South Australia. By making more observers familiar with the call of the species by way of tape recordings it may be possible to get a more accurate assessment in the future.

A word of warning to the over-enthusiastic however. Brian Glover has pointed out to me that whereas the oriole's call, if heard clearly and closely, is indeed unmistakable, there is sufficient resemblance between it and one of the short warbling calls of a magpie, heard at a distance, that all records should be confirmed visually. We have both observed that the continual chattering of smaller birds, particularly White-

plumed Honeyeaters, is often a good guide to the oriole's whereabouts.

REFERENCES

- (1) Condon, H. T. (1962); 'A Handlist of the Birds of South Australia with Annotations,' *S. Aust. Orn.*, 23, 85-150.
- (2) Edwards, E. O., *Wild Life*, 7, 216. (Orioles fed on larvae of the Painted Apple Moth which threatened to strip the black wattles in the Menangle district, N.S.W.).
- (3) Gould, John (1840-1869), *The Birds of Australia*.
- (4) Gogerly, F. (1922), *Emu*, 21, 315.
- (5) Mathews, G. M. (1910-1927), *The Birds of Australia*.
- (6) North, A. J. (1890), *Nests and Eggs of Birds Found Breeding in Australia and Tasmania*. H. W. Crouch, Gault Road, Belair, S.A. (recd. 30/vi/1970).

[Up until the time of publishing, Mr. Crouch has not recorded the Olive-backed Oriole at Belair this season—Ed.]