The Bush Stone-curlew in Northern Victoria Conversations and Conservation



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Cover (main photo): Bush Stone-curlews at their day roost in a paddock at Upotipotpon

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Introduction

Wary and elusive, the Bush Stone-curlew of southeastern Australia is a largely unseen dweller of treed farmland and woodland remnants. Its eerie call, coming on dusk or during the night, its rather curious physical appearance, and its very elusiveness all contribute to the fascination this bird holds for many.

On the plains of north-central and north-eastern Victoria occur the most substantial populations of this species in the State. They hold on to a precarious existence in a landscape very heavily modified for agriculture and populated with introduced predators.

There is much we don't understand about the Bush Stone-curlew, both regarding its habits and its ecological requirements. But it is also true that we know enough about their needs that, with the requisite will, we can greatly assist them to be able to survive and thrive in this landscape.

This book provides an overview of what we know about the Bush Stone-curlew: what it looks like, where it lives



and what its habits are. This information comes in the form of both the more formal 'scientific' descriptions, as well as the observations, experiences and recollections directly gleaned from people living on the land.

The intention of this book is to raise the profile of the Bush Stone-curlew, and inform and inspire landholders to act to help ensure these birds continue to be part of our surrounding landscape.



"You've really got to look hard because they're exactly the same colour as the timber and dry grass."

Identification

If the Bush Stone-curlew *Burhinus* grallarius appears somewhat like a large shore or wading bird, it's no coincidence - it is taxonomically classified with the order of birds that includes the plovers, lapwings, stilts, sandpipers, etc. Ecologically, however, it behaves like a woodland bird.

Almost always observed on the ground, the Bush Stone-curlew stands tall - about 55 cms - with long legs (*grallarius* is Latin for stilt, referring to the long legs) that have thickened knee joints (hence an alternative name



'Bush Thick-knee'), and large feet. Its plumage gives the overall effect of streaked greys, browns and creams, which provide it with camouflage amongst the grasses, leaf litter and fallen timber of its habitat. It has a stout, dark bill (Burhinus is Greek for ox nose) on a relatively large head; a thick black strip through the eye and down the neck; and piercing yellow eyes. Bush Stone-curlews may be observed squatting or laying down or, much less often, flying, when white wing bars may be observed.





"Curlews typically spread themselves across the ground to hide and I don't know why they don't shut their eyes because their big, bright, yellow eyes are often what catch your eyes."

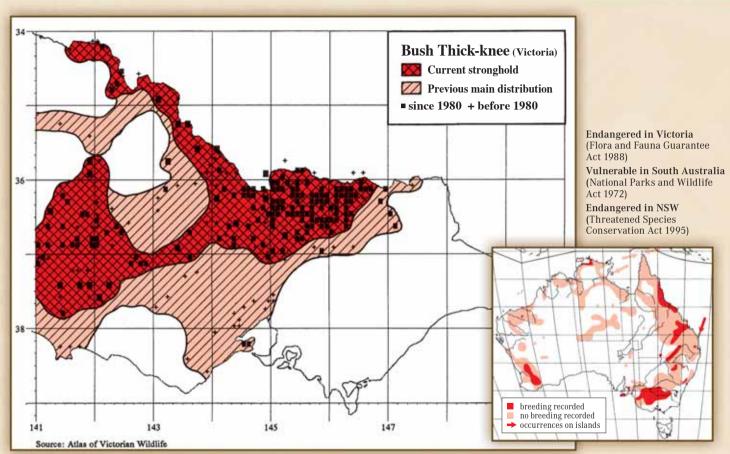
Distribution and Conservation Status

The Bush Stone-curlew is patchily distributed over eastern, northern, western and central Australia. Only in northern Australia has the Bush Stone-curlew maintained a distribution and abundance somewhat comparable to that of pre-European settlement. Elsewhere in Australia this bird has undergone a substantial decline in range and abundance.

In the early days of European settlement the Bush Stone-curlew occurred across much of western, central and northern Victoria, as well as the plains around Melbourne and Geelong. Its range in Victoria has retracted to the north and north-west, and a significant part of the decline in this area has occurred over the last 50 years. In southern Victoria the species is almost extinct, and its stronghold in this State is now on the plains of central, north and north-east Victoria – in an area roughly bounded by Seymour, Wodonga and Kerang.

The Bush Stone-curlew continues to decline in northern Victoria; surveys in the mid 1980s and early 1990s paint a picture of a reduction in numbers of around 50 percent over that interval. Its official conservation status in Victoria is "Endangered", that is, it is considered to be in danger of extinction in this State, if the present conditions that threaten its survival continue to operate. Studies have shown that the threatened Australian bird species most at risk are woodland birds weighing more than 500 grams, ground-feeders, and ground-nesting birds - the Bush Stone-curlew fits into all of these categories.

The overwhelming majority of Bush Stone-curlews in south-eastern Australia occur in agricultural landscapes, utilising habitat on private land and on minor country road roadsides. Relatively few birds are found within the conservation reserves occurring within this species' range. These generally small areas don't contain much suitable habitat for Bush Stone-curlews.



Victorian map from G. Johnson & D. Baker-Gabb 1994. The Bush Thick-knee - Conservation and Management, Department of Conservation & Natural Resources. Australian map from S. Marchant & P.J. Higgins (Eds) 1993. Handbook of Australian, New Zealand and Antarctic Birds. Vol 2: Raptors to Lapwings. © Reproduced with permission from Oxford University Press.

Stories from the Past

"You would see two or three pairs from the school bus because they were living in the road verges. That period was 1976 to 1981." Tarnook

"My first recollection of curleps was when I was a kid in bed at night and listening to the eerie sound they make." Whroo, 1940s

"They were just curlews to us. We didn't take particular notice, not like now. Because they are rare, we take notice. In those days they were just part of the landscape." *Goomalibee, 1950s* "I went to school at Moglonemby for six years from 1945 until 1950 and they were always in the unused roads that ran north and south from the school."

Those birds were nothing special, they were just another part of what was here. What I do remember is that they were so quiet. If you'd approach them they would freeze and they would allow you to pick them up." Miepoll, 1950s

"Curlews were widely spread in the Pranjip area when we were children." 1940s and 50s "Dad used to tell stories that the curlews were so thick and so noisy on moonlit nights that he used to have to get up and belt a kerosene tin to drive them away."

Miepoll South, 1940s

"In the 1960s and 70s you would hear the curlews quite commonly on our farm." Longwood

"I would come home from boarding school and it was one of the calls you would look forward to listening to." Tamleugh, 1960s and 70s

"I remember heaving the eerie cry of the curlews in the swamp around 1940 to 1945." Wahring





"The curlews are vocal when the moon is full."

The Unforgettable Call

For many who have had contact with Bush Stone-curlews it is often their call that has caught the attention and held the imagination. Frequently, the bird is not sighted.

The 'classic' Bush Stone-curlew call is a strident, whistled wailing, rising with a slight waver, and dropping at the end, usually repeated a number of times in quick succession. These series of calls can be repeated a number of times, with pauses of varying length in between. In field guides and other texts the call is usually verbalised as 'weer-loo'. The call is far-carrying, coming from across the paddock at the onset of dusk or dawn or during the night. The call is given by both sexes, and sometimes several birds call in chorus, or choruses can develop between neighbouring pairs. Calling occurs on most nights and the birds become more vocal as the breeding season approaches, and on moonlit nights, or when rain or storms are approaching. Calls are rarely made during the day.

Bush Stone-curlews make other, much less well-known, vocalisations: when feeding and resting together, they are said to croon or pipe softly. Other calls are variously described as whistles, shrieks, growls, gurgles, clucks and chuckles. "I remember being in the sleep-out with my brother, which had flywire around it on two sides, and the calls would echo around outside at night. We'd duck down under all the blankets because they'd make a really bloodcurdling noise."

"I know there are two birds, but quite often at night when you hear them calling, or it calling, you wouldn't know that there were two birds. It's normally one call at a time. So whether one bird calls and then the other has a go, I don't know."

"My theory is you would hear curlews about three nights before the rain." "We have had times here when the noise has been deafening and you're awake half the night because they just go flat out."

"To hear them start up in the middle of the night – it wasn't good for sleeping."

-0000

"For many years we thought we only had a single bird because it used to cry and cry and cry. There never used to be an answer. Then about five or six years ago, I drove into the driveway late at night and there in front of us were six birds; two adults and four chicks on the gravel and we nearly fell out of the car." "I remember the first time I heard the curlews; I wondered whether someone was dying down at the creek."

"There's nothing like that bloodcurdling cry in the middle of the night, really miss all that in town."

"We used to think their calling was a good sign of rain coming. Two or three days before rain they'd get going and you'd think 'oh, that's good'."

"You'd get all excited if it was a dry year because it was supposed to be a sign of rain when they were hollering, but it didn't always work."

Social Organisation, Habits and Behaviour

On the northern plains of Victoria, Bush Stone-curlews are most commonly observed in pairs. They also occur singly or in family groups that comprise the adult pair and one, two, or occasionally three, offspring.

Bush Stone-curlews are monogamous, the pair-bond probably being held all year, and probably long-term. A single bird may pair up again with another bird if its partner dies.

They are long-lived for a bird; 20 years plus, and maybe up to 30 is possible for birds in the wild. 'Pet' birds have been known to live for around 20 years.

Outside of the breeding season, a breeding pair may remain on their own, or they may become part of a loose 'flock' of five to ten birds. This flock may be comprised of just two neighbouring families, resting within 200 metres of each other, calling to each other and feeding together. As the breeding season approaches these flocks separate as breeding territories are established. In the past, groups of more than 60 birds used to occur in southern Australia. As densities of birds in the landscape have decreased over time (as distances between them have increased), the frequency of interaction between family groups has also decreased.

Bush Stone-curlews are sedentary, and have been known to live in the same vicinity for 30 years, although it is unlikely such observations were of the same pair. Some local movements occur when they are not breeding, however there is no evidence of large-scale seasonal movement.

In the southern part of Australia, Bush Stone-curlews are extremely wary. This combined with their cryptic appearance, make them very hard to see and observe. At their day roost they will stand quietly with their eyes half-closed, sometimes resting on one leg. They'll also spend time lying on the ground with their legs tucked forward under their body. They are usually active nocturnally, especially on moonlit nights, and inactive by day. However, their day and night activities are not always so simply and definitively



demarcated; for example, there can be some daytime feeding, and some night-time resting and preening.

Bush Stone-curlews are described as cursorial, i.e. they are adapted to running. Commonly, when disturbed they will run from the intruder, in a crouched position with their head close to the ground.

They are also strong, but reluctant, flyers. Sometimes when they are flushed they will take several steps while rapidly flapping their wings, before taking off. Reaching a height of up to several tens of metres they may fly a couple of hundred metres before alighting, in the open or in a wooded area. They may also fly in a circle to alight behind the intruder. Young are able to fly at about 60 days old. "The flight is very similar to a plover. It's not a constant, regular flap; they seem to have two or three flaps and then a bit of pause. They normally fly 200 to 400 metres at a time. If you disturb them during the day, they'll fly away, but not very far, and then later on that day, usually by evening, they'll be back in their spot again."

~

"As kids we always used to like following them and they could always run like the devil, very fast."

~

"They'll start walking quickly, then running, then flying; very short fuse, they don't muck around."

~

"The birds weren't stressed by the cows and calues running around them. It was like they didn't notice." "They get to know vehicles because people would say 'we went to have a look at your curlews and as soon as we slowed down they took off'. But we can pull up, get the mail out of the mailbox and they are just through the fence. If you open the door, they're gone. So they get to know what your routine is and if you do something different they react to it."

"They are very quiet birds and you can get quite close to them. They tend to just sit there [next to farm shed] until you get within about five metres before they decide to wander off."



"Sheep will graze right up to the curlews; they're not alarmed by them, so they're used to them."

"They take no notice of the sheep; it's the people and cars they take notice of." "They stand there and let the sheep and dogs go up and sniff them."

"They're very nervous of being looked at directly. Certainly the sight of a camera is enough to upset them."

Habitat and Range - Day Roost and Night Foraging Areas

In south-eastern Australia, Bush Stone-curlews inhabit lightly timbered woodlands and forests, farmland with clumps of trees or scattered trees, treed roadsides of minor country roads, timbered creek-lines, and golf courses. The diurnal home range is estimated to be up to 250 hectares per pair, the nocturnal home range much larger.

With a home range of several hundred hectares, Bush Stonecurlews have quite separate areas that they use during the day from those that they use during the night. The nature and patterns of usage of roost sites, foraging areas, and home range sizes vary according to the availability and proximity of suitable habitat. For an area or landscape to be suitable as habitat there needs to be several day roost sites within several hundred metres to approximately a kilometre of each other. This allows the birds to alternate between sites, for example, if they feel threatened. Foraging areas may be one to two kilometres from day roosts.

A typical pattern of movement is that birds will move out from their day roost site on dusk or dark to their feeding areas, and then approach their roost site again as daylight approaches, returning to it by morning. Night foraging areas may be in paddocks or within open woodland.

In northern Victoria the day roosts are situated in flat or rolling terrain in grassy open woodland or farmland, most commonly around the base of paddock trees or along roadsides. In all cases the ground layer is of short grass and/or sparsely grassed, with few or no shrubs (Bush Stone-curlews require visibility at ground level for at least several hundred metres), usually with ground timber present. Day roost sites are reported as occurring within 250 metres of water. In paddocks the roost site is often an area subject to less disturbance than the surrounding areas; they are rarely recorded roosting at sites with sown pasture.

If undisturbed, pairs may roost at favoured sites every day for weeks or several months; there are other examples of birds shifting between three or four roost sites over days or weeks.



"We watched a pair of curlews outside our house and they just stood in the same spot all day."

"During the daytime they stay in the one spot, but at night-time they roam fairly widely, if their calls are anything to go by. I think they call to each other and move over a couple of kilometres at night."

"We've seen and heard them north of the house in a series of swamps. It's basically red gum with some Grey Box with lots of sticks and debris on the ground."

"I've seen curlews poking about under "Yellow Box trees."



"There are two mature Grey Box trees in the corner of a paddock with a couple of dead branches which have fallen over years ago and they are just still hanging from the tree. There's a pair of curlews which get under there all the time and the rest of the paddock is open."

"We fenced the Green Mallee scrub off and I saw a pair of curlews on the edge of this area." "They spend a lot of time in some red gum saplings adjacent to the creek."

"It almost always is standing under a small casuarina that has fallen over and is now growing up."

"They seem to stick in the one area, but at certain times of the year they do seem to move about a kilometre away. I think they move because the grass gets too high." "They love the country fairly bare and they like the leaf litter and sticks to roost in. You never see them where there is a lot of grass."

"The curlew is in fairly open bush that has quite a bit of phalaris, but it sort of keeps out of the phalaris and uses an area where there are native grasses."

"My theory is that when the wool market crashed, everyone went into cropping, and the curlews that used to be able to exist under the bottom of paddock trees in grazed paddocks had to move on as the crops were too high and blocked their vision."

"Curlews certainly like good visibility."



"I've watched the curlews with a pair of binoculars in the evening and all of a sudden one bird would disappear from the roost site and you would see it well into the paddock. Then the next one would fly out to it and then they would all be off for the evening hunting." "They move around, they're not always in the one spot."



"To my knowledge they've got five or six roosting sites and they do the circuit and come back."

Feeding and Diet

Bush Stone-curlews usually feed solitarily, with the members of a pair feeding separately. They feed on the ground, mostly on ground-dwelling invertebrates occurring within the leaf litter, around timber, and in grassland.

In northern Victoria they feed mainly on insects, with the major groups being beetles, crickets, weevils, ants, and grasshoppers. Other dietary items commonly include molluscs, crustaceans, and spiders, as well as frogs, lizards and snakes. Mice have also been recorded as being taken, and seeds and small fruit may also be eaten. Their diet varies little with the seasons.

As well as faeces, birds produce regurgitated pellets of indigestible material. "Probably one of the reasons the curlews shifted to the golf course was that it was being watered over summer and there would be a lot more insects there".

"When I was having a lot of trouble with the new sprinkler system, I used to go to the oual at night and check the sprinklers, and that's when I would see them."



Native Cockroach



Cockchafer Larva



Ground Beetle

Insects Identified in Regurgitated Pellets and Faecal Samples

(from G. Johnson & D. Baker-Gabb (1994); The Bush Thick-knee - Conservation and Management, Department of Conservation & Natural Resources) Most specimens were identified only to Order or Family, however in several cases Genus was identifiable.

1. Wingless Insects

Collembola (Springtails): common in damp leaf litter

2. Winged Insects

Blattidae (Cockroaches): hundreds of individuals; native species Blattidae - Laxta grandicollis: common in leaf litter and under bark and logs Coleoptera (Beetles): most terrestrial, many carnivorous, larvae often plant feeders

- a) Curculionidae (Weevils); plant feeders; serious crop pests
- b) Tenebrionidae (Darling Beetles); ground-dwelling
- Scarabaeidae (Cockchafers or Scarab Beetles)
- d) Carabidae (Ground Beetles); found in leaf litter and under logs
- e) Lucanidae (Stag Beetles); ground-dwelling
- Hemiptera (True Bugs)
- f) Cicadellidae or Eurymelidae (Cicadas); large flying insects
- g) Miridae or Lygaeidae (Chinch Bugs); grasslands to cultivated crops

Hymenoptera (Ants, Bees, Wasps) Formicidae (Ants): mainly Camponotus species Orthoptera (Crickets, Grasshoppers, Locusts): Acrididae (Locusts): mainly ground-dwelling

Nesting and Breeding

During the breeding season, Bush Stone-curlews defend an area of the order of 10 to 25 hectares. In northern Victoria this can occur anytime between August and March, although breeding is usually concentrated between November and January.

Bush Stone-curlews usually nest out in the open away from trees, and sometimes nest in recently ploughed paddocks. As is the case with their day roosts, nesting sites have good visibility in all directions at ground level. Nesting sites are known to have been reused for several decades.

The nest is situated on the ground with usually two eggs (sometimes

one, and even three have been recorded) laid in a simple scrape or clearing. Both sexes are involved in the incubation, defence and rearing of the young. However, one parent provides most of the care of the chicks while the other remains nearby, assisting in defence and feeding. After around three to four weeks the eggs hatch, and the chicks are mobile soon after. Within one to two hours of hatching they are led by their parents away from the nest to a site under trees with ground timber present.

The young are partially independent by four weeks of age and by about eight to ten weeks the chicks are able to fly. Usually only one young is raised to independence, although sometimes two clutches of eggs are laid within a season. The second clutch may follow either breeding success or failure in the first clutch.

Breeding birds forage near to the nest, with families progressively venturing further from the nest in the first few weeks after hatching. Alternatively, they have been known to leave the area entirely within the first few days. Chicks will stay with their parents from three to nine months, depending on whether they are from the first or second brood.



"You'll see one sitting on the nest and the other one will be guarding."

"The nesting site is located between the two Grey Box trees on the ironstone rise."

"The eggs are a very motley colour and blend in very well with the ground cover."

"You'll occasionally pick up an adult bird running off and there will be a couple of little fluffy things freezing because they will freeze; that seems to be their defence."

"Once they're hatched, they're only a ball of fluff." "The first time you're aware that there's a nest, you'll see a bird just sitting or standing out in the middle of the paddock and that's usual. If you look around for the nearest tree, the mate will be standing in there."

"The nesting is around September and by December the young birds are nearly as big as their parents."

"Nesting sites tend to be reused but will be abandoned if grass becomes too high."

"Curlews, like plovers, keep their body very low to the ground when they are nesting. They usually have two eggs." "It was only during the nesting period, probably in early spring, that we would normally see them."

"I've never found cracked or broken eggs, even though some of them have been in the middle of nowhere and others in a stock access area to sheep yards."

"The nest is purely to incubate the eggs and what I have seen is that once the chicks are hatched the adults take them straight across to the timber. As soon as the chicks hit the ground they can run."



Land Clearing, Land Intensification and Foxes

As outlined earlier, the Bush Stonecurlew has undergone a substantial reduction in its range and numbers in south-eastern Australia since European settlement. There are a number of reasons for this, with several being of particular significance.

As is most often the case regarding the decline of any species, the destruction and modification of Bush Stone-curlew habitat has been, and continues to be, the single greatest factor in the substantial decline in this species. The Bush Stone-curlew's natural habitat of lowland woodlands, particularly grassy woodlands, was one of the first vegetation types in Victoria to suffer from the impacts of agriculture. Over the 175 years since European settlement in Victoria, this vegetation type has been substantially cleared, modified and degraded. Although large-scale clearing of woodland has largely ceased, degradation of habitat continues through the ongoing loss of large, old 'paddock trees', the removal of fallen timber, branches and leaf litter around trees, and the advent of more intensive agricultural practices, such as cropping. With little or no recruitment of trees due to persistent grazing, the effect of the loss of existing trees is exacerbated.

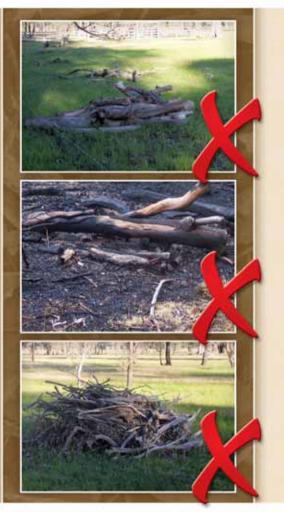
Another significant factor in the continuing drop in abundance of the species is predation on birds, particularly by foxes, and perhaps to a lesser extent, cats. Predation is probably greatest on eggs and chicks but also occurs on adult birds. Good populations of Bush Stone-curlews are found on the fox-free islands of Magnetic Island, off Queensland, and Kangaroo Island, off South





Australia, and also in northern Australia where climatic conditions are not favourable for foxes. Where ongoing fox and cat control programs have been undertaken, such as at Puckapunyal Military Area in central Victoria, populations of Bush Stone-curlews have increased.

"Fallen timber is critical habitat for this ground dwelling bird"



"The area was originally very thick with tea-tree right up until the 1950s, when stock got into it and then we started clearing and cultivating. We never thought about fencing the tea-tree then."

"We no longer clean up around those trees where the curlews are or crop around them. We chop that corner off and just let the rubbish fall and build up and let it go from there."

"It is important that when the limbs of trees fall down people don't necessarily go and clean them up."

"Every now and then you find the wings or feathers of one that has been taken by a fox."



"We've always had the attitude that if you leave your fallen timber as much as you can, obviously you collect some bits for your firewood, but if you leave, I would say, 70 percent, you're going to benefit from that as far as your biodiversity and insects and birdlife are concerned. The fallen timber keeps the sheep away from the trunks of the trees and stops the nibbling." "We live on the Broken River and for the last 15 years I don't think I've heard one curlew; the foxes have just cleaned them up."

"Our property was one of the last ones to be developed and the curlews were heavily living along the roadsides; they weren't deeply into the paddocks." "The stick rake is a big enemy of the curlews. People around here just can't bear to see limbs, sticks, leaf litter lying on the ground. They run round their trees every year and burn it all up so the curlews' habitat is all gone."

"When we bought the property [in 1952] there were two curlews in the stand of Grey Box trees just south of the house. They were always there and they got really quiet and over time grew to eight birds. Then in 2002 the foxes got them and we've never seen them since."

"We cleared the red gum suckers and the curlews disappeared. In hindsight this was probably the wrong thing to do." "My approach is that anything under the drip line of the trees doesn't pose a problem to my farming. If I'm going to crop a paddock I do clean up a little bit but I have been known not to crop a paddock because the curlews were using it."

"We have a dam about 50 metres from the house and it was surrounded by netting fence, and in that area of about an acre and a half we had two or three pairs of curlews. About ten years ago we took the wire netting fence out to extend the dam and they didn't ever return. I have no doubt they were secure in there from foxes."

Fox Facts

- Introduced into southern Australia around 140 years ago and now occupy most areas
- Average density of 4-8 foxes per square kilometre in agricultural landscapes
- Females can produce in excess of 20 young over an average life span of 4 years
- Consume approximately 375 grams of food per day
- Given the above densities of 4 foxes per km², over half a tonne of food is consumed each year over a 100 hectare area

The Miepoll Story - Successful Breeding

Don's Story

"My brother and I have been aware of curlews in the Miepoll area for the last 30 years and we've frequently heard them in the evenings. For the last 10 years we've been aware of a pair on our property where they spend most of their time, although we only see them occasionally.

In autumn 2004, with the assistance of a Victorian government Threatened Species grant, a fox-proof fence was erected around an area of 14 hectares where the curlews lived. The area included about 10 hectares of reasonably good quality native grasses, some bushland and a dam. The fence comprises chicken wire on the bottom section and hinge joint above it, with an electric wire on the outside. Within the fox-proof area there is an area of bush that is fenced just with hinge-joint to exclude the sheep and allow access for the curlews as a refuge. The foxproof fenced area is used for lambing of merino and cross-bred ewes.

The curlews do most of their nesting and day roosting in an open area on the ironstone ridge in some Grey Box trees which are approximately 50 years old. In spring 2005 a chick was born and successfully raised. It stayed with its parents right through until the following winter when we lost track of them.

In September of 2006 we were delighted to find the pair of adult birds and two chicks. We saw them making good progress and then they disappeared around October. By this time the chicks could travel quite quickly on the ground with the parents, but they couldn't fly, so were confined to the fox-proof area. If you put pressure on the young chicks, they would firstly move away and then they would drop and hide. If you weren't watching them when they dropped, you wouldn't find them again.

A PhD student from Charles Sturt University spent a few nights calling the birds up using a recording of a curlew call which she played through a loud hailer. They would roll up instantly and she could have a look at them. I had spent hours and days looking for them without success."



A Surprising Find (Bush Stone-curlew Project Officer)

Susan's Story

"In August 2007 the curlews again nested on the ironstone ridge between two Grey Box trees, however this nesting attempt was unsuccessful and there were no further sightings of the birds by the owner. A professional photographer was taken to the site in February 2008 to photograph the curlew nesting area in the absence of the curlews. To our surprise, not only did we glimpse a pair of curlews disappearing into the native grasses in the paddock, but we almost stumbled onto their two chicks which had frozen under the Grey Box trees in the heat of the day.

What is surprising is that the owner who is familiar with their nesting site, always on the lookout for the curlews and armed with binoculars, did not know the birds had a second brood of chicks. And even after this chance sighting, the birds were not seen again until late August 2008. This demonstrates how difficult it is to provide an accurate picture of Bush Stone-curlews, as they are elusive and masters of camouflage. In 2009, the two adult birds were sighted on several occasions outside the fenced area, but no nesting activity was observed."





What we can do to help

Remember, most Bush Stone-curlew populations exist on private land.

- Designate an area that is lightly timbered, with native grasses, few weeds and no fertiliser
- Retain short grass cover by strategically grazing
- Control foxes, cats, domestic and wild dogs
- During nesting period be aware of birds in the middle of paddocks
- Limit the use of pesticides, as they may be a big contributor to chick death. Build up of organophosphates have been found in the brains of 5-day-old dead chicks.





Remnant Trees

-Leaf Litter

-Fallen Timber

<--- Short Native Grass

For further information

The Action Statement for the Bush Stone-curlew can be found on the DSE website. Go to www.dse.vic.gov.au, and then click on 'Plants and Animals', 'Native Plants and Animals', 'Threatened Species and Communities', and 'Action Statements'.

Enquiries about Bush Stone-curlews can be made at your local DSE office on the following phone numbers:

Benalla:03 5761 1611;Wodonga:02 6043 7900;Wangaratta:03 5723 8600;Tatura:03 5833 5222;Bendigo:03 5430 4444.

For new records or breeding sites, please contact DSE (on phone numbers above) or Birds Australia on 1300 730 075.



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"We didn't know there was a chick until the photo was developed."