

Saving our Species 2017-2018 annual report card

Pied Oystercatcher

Species attributes

Scientific name	<i>Haematopus longirostris</i>
NSW status	Endangered
Commonwealth status	Not listed
Management stream	Site-managed species



Photographer: Michael Todd

Overall status*

- Populations at all sites are known to be on track.
- Threat management is known to be on track at all sites, and population status is unknown at one or more sites.
- Threat management is known to be off track at one or more sites, and population status is unknown at one or more sites.
- Populations at one or more sites are known to be off track.
- Populations at sites not determined.**

* For SoS priority management sites (may not include all locations where the species occurs in NSW)

Summary

Management sites	Bombing Range Beach; Broadwater Beach; Brunswick Heads North; Clarence River Entrance; Comerong Island; Conjola; Manning River; Murramarang; South Ballina; Towra Point; Tuross Brou; Yuraygir Mid; Yuraygir South
Action implementation	42 of 42 management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$282,235 (\$97,602 cash; \$184,633 in-kind)
Partners	Byron Bird Buddies; Byron Shire Council; Department of Defence; Eurobodalla Shire Council; Hunter Local Land Services; MidCoast Council; National Parks and Wildlife Service Beach-nesting Birds; NSW Department of Industry - Lands; NSW Department of Primary Industries - Lands; Office of Environment and Heritage; private consultant; Shoalhaven City Council; South East Local Land Services; Sutherland Shire Council

Management site 1: Bombing Range Beach

Local Government Area	Clarence Valley; Richmond Valley
Estimated species population size	8.4 breeding pairs over a 10 year average.
Partners	Department of Defence; Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regularly monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027).
Confidence in monitoring	High
Conducted by	Department of Defence; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Department of Defence	\$6,960	\$0
Office of Environment and Heritage	\$4,840	\$0

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

Seven birds fledged from nine breeding pairs. Management implemented as planned. Causes of egg and chick loss largely unknown.

Management site 2: Broadwater Beach

Local Government Area	Not specified
Estimated species population size	4.4 breeding pairs over a 10 year average.
Partners	NSW Department of Industry - Lands; Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2005 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027)
Confidence in monitoring	High
Conducted by	NSW Department of Industry - Lands; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
NSW Department of Industry - Lands	\$3,215	\$0
Office of Environment and Heritage	\$19,554	\$0

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

While the regional breeding population appears stable, the number of breeding pairs using this site and the adjacent south Ballina site has been declining since 2005 at about 5% per year. High levels of disturbance especially from four-wheel drives is the most likely cause of these declines. In 2017-18, 11 fledglings were observed from 13 breeding pairs. The causes of most egg and chick losses were unknown, although human interference was the likely cause of three failed nesting attempts by one pair in Richmond River Nature Reserve. Management was implemented as planned, although disturbance remains a significant challenge of these sites.

Management site 3: Brunswick Heads North

Local Government Area	Not specified
Estimated species population size	3.3 breeding pairs over a 10 year average.
Partners	Byron Bird Buddies; Byron Shire Council; Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027)
Confidence in monitoring	High
Conducted by	Byron Bird Buddies; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Byron Bird Buddies	\$0	\$2,560
Byron Shire Council	\$0	\$849
Office of Environment and Heritage	\$3,879	\$6,664

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

Three fledglings observed from four breeding pairs. No nests were observed for a further two resident pairs. Fox control and other site management was implemented as planned although compliance regarding domestic dogs appears inadequate. Two eggs probably lost to a domestic dog.

Management site 4: Clarence River Entrance

Local Government Area	Clarence Valley
Estimated species population size	4.9 breeding pairs over a 10 year average.
Partners	Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027)
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$1,800	\$3,608

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Inundation of nests by high tides, storms and other flooding.	Elevate, move or otherwise protect nests from inundation as required.	Yes

Site summary

One fledgling observed from two breeding pairs. No nests were observed for a further three resident pairs. Site management was implemented as planned. Two eggs lost to inundation.

Management site 5: Comerong Island

Local Government Area	Kiama; Shoalhaven
Estimated species population size	4.7 breeding pairs over a three year average.
Partners	National Parks and Wildlife Service Beach-nesting Birds; NSW Department of Industry - Lands; Office of Environment and Heritage; Shoalhaven City Council

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The population trend is unknown at this time because the species population was not monitored and a critical threat was not monitored or managed this financial year.

Monitoring

Monitoring metric	Species abundance
Monitoring result	Analysis in progress.
Confidence in monitoring	High
Conducted by	National Parks and Wildlife Service Beach-nesting Birds; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
National Parks and Wildlife Service Beach-nesting Birds	\$0	\$3,000
NSW Department of Industry - Lands	\$1,602	\$0
Office of Environment and Heritage	\$4,755	\$19,428

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Partial implementation - funding issues
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Partial implementation - Data entry into PWIS not done. Impedes analysis of management effectiveness. Competing priorities of staff.

Site summary

Five fledglings observed from six breeding pairs. Fox control and other site management was implemented, although foxes remained the primary source of nest loss. Fox control data was not collated. Compliance regarding domestic dogs appeared inadequate.

Management site 6: Conjola

Local Government Area	Shoalhaven
Estimated species population size	7.6 breeding pairs over a five year average.
Partners	National Parks and Wildlife Service Beach-nesting Birds; NSW Department of Industry - Lands; Office of Environment and Heritage; Shoalhaven City Council

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The population trend is unknown at this time because the species population was not monitored and a critical threat was not monitored or managed this financial year.

Monitoring

Monitoring metric	species response
Monitoring result	Analysis in progress.
Confidence in monitoring	High
Conducted by	National Parks and Wildlife Service Beach-nesting Birds; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
National Parks and Wildlife Service Beach-nesting Birds	\$0	\$7,600
NSW Department of Industry - Lands	\$1,369	\$0
Office of Environment and Heritage	\$4,755	\$10,008
Shoalhaven City Council	\$0	\$165

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Partial implementation - funding issues
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

Seven fledglings observed from 12 breeding pairs. Fox control and other site management was implemented, although compliance regarding domestic dogs appeared inadequate. Some losses to foxes and ravens, although the cause of most egg and chick loss remains unknown.

Management site 7: Manning River

Local Government Area	Mid-Coast
Estimated species population size	7.8 breeding pairs over a 10 year average.
Partners	Hunter Local Land Services; MidCoast Council; NSW Department of Primary Industries - Lands; Office of Environment and Heritage; private consultant

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027)
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage; private consultant

Investment

Participant	Cash	In-kind
Hunter Local Land Services	\$99	\$1,410
MidCoast Council	\$0	\$2,450
NSW Department of Primary Industries - Lands	\$7,291	\$2,570
Office of Environment and Heritage	\$10,248	\$10,340
private consultant	\$0	\$700

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Install temporary fencing and signs to protect nest sites from 4WD vehicles and pedestrians. Undertake community education and engagement on sustainable beach behaviour to protect beach-nesting birds.	Partial implementation - Temporary fencing was installed but 4WD activity had already disturbed breeding behaviour, and the fencing was repeatedly breached. Illegal 4WD activity seems to be increasing at this site.
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Undertake community liaison and compliance to minimise the impact of domestic dogs on beach-nesting birds.	Partial implementation - funding issues
Predation of eggs and chicks by foxes.	Deliver integrated fox control including baiting and trapping across all tenures.	Partial implementation - Fox control was conducted on NPWS estate and some private land but limited control was possible on crown lands portion of site.

Site summary

The site was subject to high levels of disturbance by humans (including illegal 4WD activity) and domestic dogs. Related compliance was inadequate. Further, fox control was very limited in part due to high levels of domestic dog activity. Despite this, eight fledglings from four breeding pairs were recorded which is well above the long-term fledging rate for this species in New South Wales.

Management site 8: Murramarang

Local Government Area	Eurobodalla; Shoalhaven
Estimated species population size	5.4 breeding pairs over a five year average
Partners	Eurobodalla Shire Council; National Parks and Wildlife Service Beach-nesting Birds; NSW Department of Industry - Lands; Office of Environment and Heritage; Shoalhaven City Council

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The population trend is unknown at this time because the species population was not monitored and a critical threat was not monitored or managed this financial year.

Monitoring

Monitoring metric	Species abundance
Monitoring result	Analysis in progress,
Confidence in monitoring	High
Conducted by	National Parks and Wildlife Service Beach-nesting Birds; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Eurobodalla Shire Council	\$0	\$707
National Parks and Wildlife Service Beach-nesting Birds	\$0	\$11,400
NSW Department of Industry - Lands	\$2,025	\$0
Office of Environment and Heritage	\$5,400	\$17,715
Shoalhaven City Council	\$0	\$1,582

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Partial implementation - funding issues
Predation of eggs and chicks by avian predators (mostly corvids and gulls).	Manage avian predators as required.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Partial implementation - funding issues

Site summary

Two fledglings observed from four breeding pairs. Fox control and other site management was implemented, although compliance regarding domestic dogs appeared to be inadequate. Fox control data was not collated. One nest lost to foxes, although the cause of most egg and chick loss remains unknown.

Management site 9: South Ballina

Local Government Area	Ballina; Richmond Valley
Estimated species population size	7.6 breeding pairs over a 10 year average.
Partners	NSW Department of Industry - Lands; Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2005 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027).
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
NSW Department of Industry - Lands	\$4,823	\$0
Office of Environment and Heritage	\$6,733	\$0

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

While the regional breeding population appears stable, the number of breeding pairs using this site and the adjacent Broadwater site has been declining since 2005 at about 5% per year. High levels of disturbance especially from four-wheel drives is the most likely cause of these declines. In 2017-18, 11 fledglings were observed from 13 breeding pairs. The causes of most egg and chick losses were unknown, although human interference was the likely cause of three failed nesting attempts by one pair in Richmond River Nature Reserve. Management was implemented as planned, although disturbance remains a significant challenge of these sites.

Management site 10: Towra Point

Local Government Area	Rockdale; Sutherland
Estimated species population size	6.8 breeding pairs over a five year average
Partners	NSW Department of Industry - Lands; Office of Environment and Heritage; Sutherland Shire Council

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The population trend is unknown at this time because the species population was not monitored and a critical threat was not monitored or managed this financial year.

Monitoring

Monitoring metric	Species abundance
Monitoring result	Analysis in progress.
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
NSW Department of Industry - Lands	\$2,500	\$0
Office of Environment and Heritage	\$0	\$22,889
Sutherland Shire Council	\$0	\$28,569

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

Seven birds fledged from nine breeding pairs. Management implemented as planned although monitoring was less frequent than previous seasons. Causes of egg and chick loss largely unknown.

Management site 11: Tuross Brou

Local Government Area	Eurobodalla
Estimated species population size	8.8 breeding pairs over a five year average.
Partners	Eurobodalla Shire Council; National Parks and Wildlife Service Beach-nesting Birds; Office of Environment and Heritage; South East Local Land Services

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The population trend is unknown at this time because the species population was not monitored and a critical threat was not monitored or managed this financial year.

Monitoring

Monitoring metric	species response
Monitoring result	Analysis in progress
Confidence in monitoring	High
Conducted by	National Parks and Wildlife Service Beach-nesting Birds; Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Eurobodalla Shire Council	\$0	\$330
National Parks and Wildlife Service Beach-nesting Birds	\$0	\$8,120
Office of Environment and Heritage	\$1,771	\$7,672
South East Local Land Services	\$0	\$330

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

Three birds fledged from eight breeding pairs. Fox control and other management implemented as planned. Causes of egg and chick loss largely unknown.

Management site 12: Yuraygir Mid

Local Government Area	Clarence Valley
Estimated species population size	3.4 breeding pairs over a 10 year average.
Partners	Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate effects of management of fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Species abundance
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027)
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$2,250	\$9,756

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Inundation of nests by high tides, storms and other flooding.	Elevate, move or otherwise protect nests from inundation as required.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

10 fledglings from nine breeding pairs were recorded for Yuraygir Mid and South combined. No nest was observed for a further resident pair. Fox control and other site management was implemented as planned.

Management site 13: Yuraygir South

Local Government Area	Clarence Valley; Coffs Harbour
Estimated species population size	3.6 breeding pairs over a 10 year average.
Partners	Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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Monitoring

Long term target	Monitor species abundance and estimate the effects of management on fledging rates.
Annual target	Long-term trend in the number of breeding pairs is greater than or equal to zero.
Monitoring metric	Reproductive success / recruitment
Monitoring result	Estimates of the number of breeding pairs summed across regular monitoring areas in northern New South Wales have remained relatively stable from 2001 to 2017 (90% confidence limits on annual rate of change -0.014 to 0.027).
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$1,733	\$4,210

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Disturbance of nesting shorebirds and direct mortality of eggs and chicks by trampling or removal by humans. 4WDs are a threat at some sites.	Maintain signs and fencing and undertake community liaison and compliance.	Yes
Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs.	Maintain signs and fencing and undertake community liaison and compliance for domestic dogs.	Yes
Inundation of nests by high tides, storms and other flooding.	Elevate, move or otherwise protect nests from inundation as required.	Yes
Predation of eggs and chicks by foxes.	Maintain fox control through the nesting season as per best-practice guidelines www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/foxes/guidelines-for-fox-control .	Yes

Site summary

10 fledglings from nine breeding pairs were recorded for Yuraygir Mid and South combined. No nest was observed for a further resident pair. Fox control and other site management was implemented as planned although compliance regarding domestic dogs appears inadequate at Yuraygir South. Two eggs probably lost to a domestic dog.