Australian Capital Territory

Nature Conservation (Curlew Sandpiper) Conservation Advice 2025

Notifiable instrument NI2025–302

made under the

Nature Conservation Act 2014, s 90C (Conservation advice)

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1 Name of instrument

This instrument is the *Nature Conservation (Curlew Sandpiper) Conservation Advice 2025*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for Curlew Sandpiper

Schedule 1 sets out the conservation advice for Curlew Sandpiper (*Calidris ferruginea*).

Linda Neaves
Chair, Scientific Committee
21 May 2025

Schedule 1

(see s 3)

ACT Government
Environment, Planning and Sustainable Development

ACT Scientific Committee

CONSERVATION ADVICE

CURLEW SANDPIPER – *Calidris ferruginea*

CONSERVATION STATUS

The Curlew Sandpiper – *Calidris ferruginea* (Pontoppidan, 1763) – is recognised as threatened in the following jurisdictions:

International	**Vulnerable**, International Union for Conservation of Nature (IUCN) Red List
National	**Critically Endangered**, *Environment Protection and Biodiversity Conservation Act 1999*
	Marine, *Environment Protection and Biodiversity Conservation Act 1999*
	Migratory, *Environment Protection and Biodiversity Conservation Act 1999*
	Endangered, Action Plan for Australian Birds 2020
ACT	**Critically Endangered**, *Nature Conservation Act 2014*
NSW	**Critically Endangered**, *Biodiversity Conservation Act 2016*
VIC	**Critically Endangered**, *Flora and Fauna Guarantee Act 1988*
QLD	**Critically Endangered**, *Nature Conservation Act 1992*
NT	**Critically Endangered**, *Territory Parks and Wildlife Conservation Act 1976*
WA	**Critically Endangered**, *Biodiversity Conservation Act 2016*
SA	**Endangered**, *National Parks and Wildlife Act 1972*
TAS	Not Listed, *Threatened Species Protection Act 1995*

ELIGIBILITY

The Curlew Sandpiper is listed as Critically Endangered in the ACT Threatened Native Species List under IUCN Criterion A – A2bce+3ce+4bce as the species has undergone a reduction in numbers of over 80 percent over three generations, and the cause of decline has not ceased. While not fully understood, the reduction in numbers is thought to be due, in part, to the increasing frequency and length of droughts, particularly in south-eastern Australia (Clemens 2017). Elsewhere, the main threats are changes to coastal staging locations, particularly along the coast of the Yellow Sea, pollution, and hunting or drowning from fishing nets. (DCCEEW 2024; Attachment 1).

Curlew Sandpiper (Joel Poyitt – Cornell Lab of Ornithology|Macaulay Library)

DESCRIPTION AND ECOLOGY

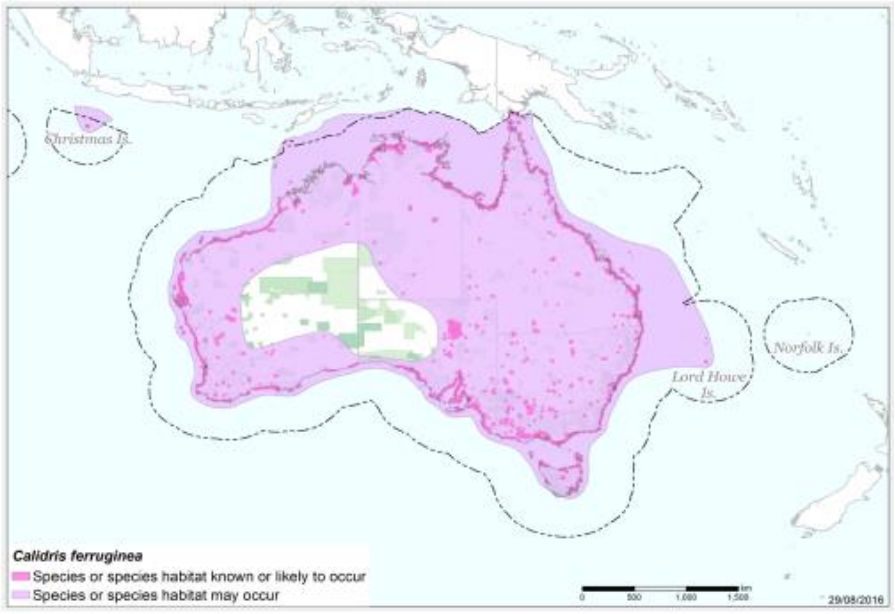
The Curlew Sandpiper is a small-medium-sized wader bird, typically 18–23 cm long, has a wingspan of 38–41 cm, and weighs 57 grams. It has

a long, black decurved bill with a finely pointed tip and has longish black legs and feet. The sexes appear similar, however, females are slightly larger and have a longer bill and there is marked seasonal variation in plumage (DCCEEW 2024). In its non-breeding plumage, it is grey-brown above, and white below, with a white wing-bar and rump visible in flight. In breeding plumage, it is bright reddish-brown below and the wings are barred black (Birdlife Australia 2024). The Curlew Sandpiper feeds on insects and their larvae when breeding and when in Australia on small marine invertebrates. Curlew Sandpiper often feed in mixed flocks with other species of shorebirds, pecking at invertebrates on the surface of the mud or making shallow probes below its surface (Higgins and Davies 1996; Dann 1999).

DISTRIBUTION AND HABITAT

Curlew Sandpipers breed in June and July in the Arctic of northern Siberia. They migrate through Europe and the Middle East to Africa, and through South Asia and South-east Asia and Australasia (Weller et al. 2020). They arrive in Australia in September and are most common in the far south-east and north-west of Australia where they are widespread in many coastal sites and to a lesser extent in suitable inland wetland habitats. For example, they occur along the entire coast of New South Wales, particularly in the Hunter Estuary and sometimes in freshwater wetlands in the Murray-Darling Basin (DCCEEW 2024) (Map 1). The Curlew Sandpiper departs the non-breeding grounds in Australia in April, however many juveniles may over winter in Australia.

Map 1. Modelled distribution of the Curlew Sandpiper



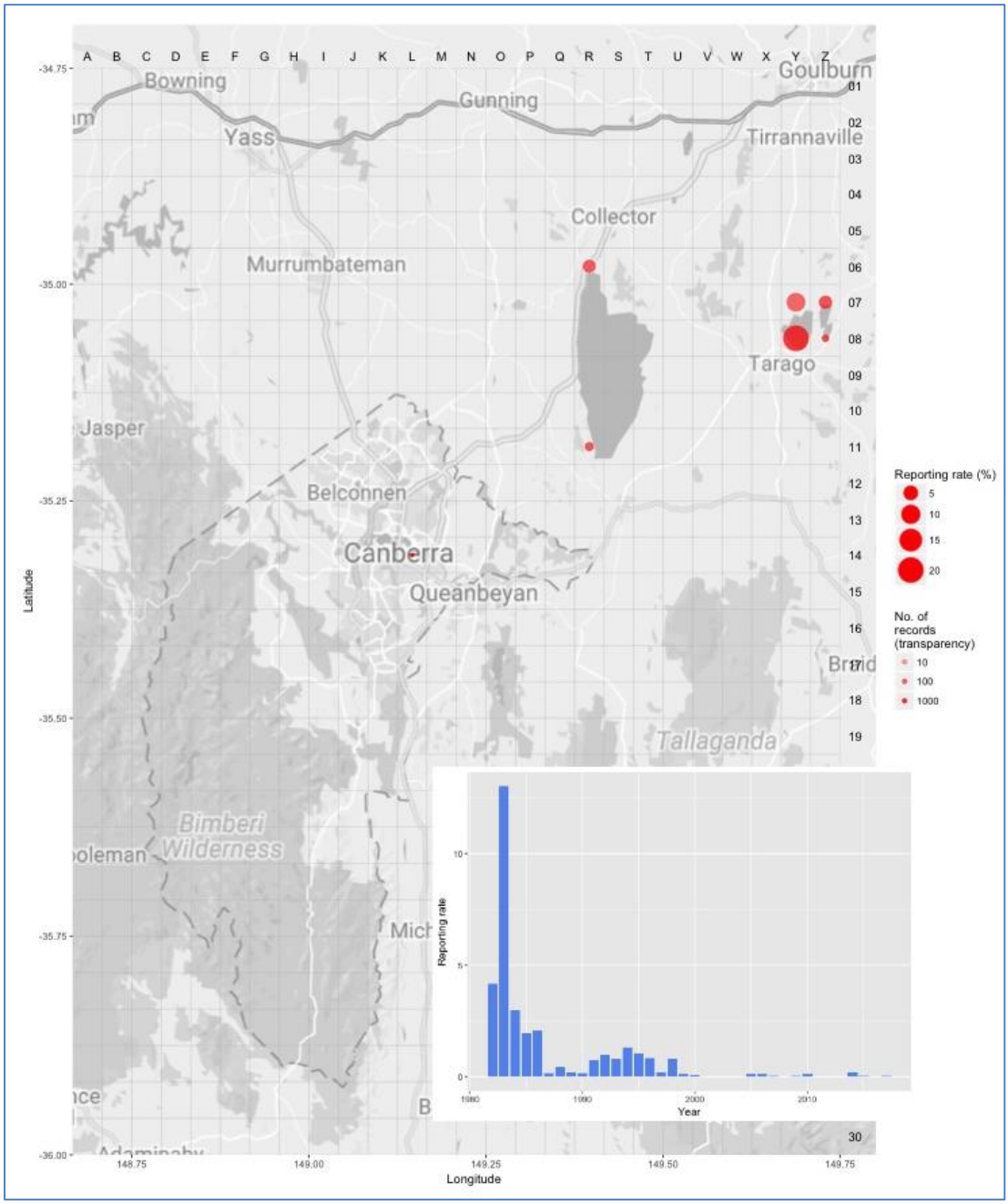
Source: Base map Geoscience Australia; species distribution data Species of National Environmental Significance database.

In Australia, habitat critical to the survival of Curlew Sandpipers includes a mosaic of feeding and roosting habitat (DCCEEW 2024). The species may be highly selective about foraging environments because of its specialised feeding techniques. Feeding habitat includes exposed sandy or soft mud substrates on intertidal flats and beaches. Curlew Sandpipers also occur at inland wetlands when conditions are suitable, particularly on the muddy edges of marshes, large rivers and lakes (both saline and freshwater), irrigated land, flooded areas (del Hoyo et al. 1996), dams (Urban et al. 1986), and saltpans. Curlew Sandpipers also roost in mixed-species flocks, usually in sheltered mudflats or inland water bodies.

The Curlew Sandpiper is mainly a coastal species and is rarely recorded in the ACT. The species has been recorded in the ACT between late August and early November (ebird 2024), and only in 10% of years

(1974–2014) (ACT Government 2018). It appears to coincide to the times when there is widespread and severe drought across South-eastern Australia, and it is possible that they are appearing in the ACT region when there is limited freshwater habitats available elsewhere. The published records are mostly of single birds seen within Jerrabomberra Wetlands Nature Reserve (JWNR) at Kellys Swamp and Jerrabomberra Creek, and at Fyshwick Sewage Ponds. However, eight birds were seen together in JWNR in September 1972 (COG 1972). Single birds in this area were also recorded in early September and November in 1982 and early January 1983 (COG 1984 CBN 9(1)), in January 2002, late August 2004 (COG 2006), mid-September 2009 (COG 2011), early November 2013 (COG 2015) and one at the end of September 2018 (COG 2020).

Figure 1: Distribution of Curlew Sandpiper records in the ACT region – 1982–2017



Source: Canberrabirds.org.au. (2018). Note: Reporting rate (%) is the proportion of all surveys in which the species was present. These data were collected by volunteer birdwatchers using various survey methods and, on some occasions, more than one person may have recorded bird sightings on the same day, which may skew the data.

THREATS

In Australia, the major threat to this species is an increase in the frequency and length of droughts (Clemens 2017). The ongoing loss and degradation of habitat, including coastal habitat affected by rising sea levels, is also likely to threaten Curlew Sandpiper populations in Australia.

Within the ACT, the Curlew Sandpiper is primarily threatened by loss and degradation of suitable ephemeral habitat and disturbance to fitness-related behaviours (ACT Government 2018), mostly due to:

- anthropogenic climate change-related loss of wetland habitats, due to, for example, reduced rainfall and run-off, increased temperature and evaporation, and increasing incidence and severity of drought
- habitat degradation through unfavourable changes to or management of vegetation surrounding wetland sites, resulting in altered hydrology, poor water quality or water contamination
- anthropogenic disturbance, including visitors to publicly accessible wetlands for recreation (e.g., JWNR); leashed or roaming dogs; potentially cats and foxes; and impacts of residential/industrial development including noise, light and chemical pollution, as well as redirected excessive run-off from nearby urban development that can adversely impact the pedoderm and corresponding ecosystem function.

MAJOR CONSERVATION OBJECTIVE

The priority management objective should be to maintain viable, wild populations of the species in the long term, as a component of the indigenous biological resources of the ACT and as a contribution to regional and national conservation of the species. This includes the need to maintain natural evolutionary processes.

CONSERVATION PRIORITIES

Conservation actions specific to the Curlew Sandpiper are detailed in the Commonwealth Conservation Advice (DCCEEW 2024). The ACT Action Plan for Listed Migratory Species outlines conservation actions relevant to migratory birds,and aims to *improve knowledge about the occurrence and management of listed migratory species in the ACT* (ACT Government 2018). Conservation and management priorities for Curlew Sandpiper in the ACT should be to:

- protect habitat, especially important feeding and roosting habitat through improving legal site protection and managing other threats identified in the ACT Action Plan for Listed Migratory Species
- monitor population trends and condition as provided by citizen science
- model the effects of climate change on the distribution and quality of the species' habitat (see below)
- actively seek opportunities to involve members of local indigenous communities in on ground conservation activities for this species
- encourage and support the continuation and further development of community conservation activities, e.g., the Jerrabomberra Wetlands programs
- continue to support the engagement with other jurisdictions to support the international recovery of the species

CONSERVATION ISSUES

It is recommended that quantitative targets and resourcing requirements are clearly identified in any Action Plan or other related projects/programs relevant to this species. Broader conservation issues need to be considered in developing and implementing actions arising from this advice.

Critical Habitat

Under the EPBC Act, 'important habitat' is a key concept for migratory species, as identified in EPBC Act Policy Statement 1.1 Significant Impact Guidelines - Matters of National Environmental Significance 2009. Important habitats in Australia for migratory shorebirds under the EPBC Act include those recognised as nationally or internationally important. JWNR and the Horse Park Wetlands (separate to Horse Park Drive Wetlands) are nationally important wetlands in the *Australian Directory of Important Wetlands in Australia* (DCCEEW 2023).

The Commonwealth Conservation Advice (DCCEEW 2024) identifies 'habitat critical to the survival' or important habitats of a species refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal
- for the long-term maintenance of the species (including the maintenance of species essential to the survival of the species, such as macrobenthos (sediment-dwelling invertebrate prey)
- to maintain genetic diversity and long-term evolutionary development, or
- for the reintroduction of populations or recovery of the species.

Habitat critical to the survival of the species, should not be destroyed or modified. Actions that have indirect impacts on habitat critical to the survival of the species should also be minimised (i.e., human disturbance or light pollution impacting habitat). Actions that compromise survival, such as the introduction of new diseases, weeds, or predators, should also be avoided. Actions that remove habitat critical to the survival of the Curlew Sandpiper would interfere with recovery and reduce the area of occupancy of the species. It is important to retain as much foraging and roosting habitat as possible (DCCEEW 2024).

No Critical Habitat as defined under section 207A of the EPBC Act has been identified or included in the Register of Critical Habitat under the EPBC Act.

Climate Change

Climate change impacts are inevitable and will affect the likelihood of persistence, within the ACT, of many species. The Curlew Sandpiper is only using habitat in the ACT intermittently but if this increases then capacity should be developed to model the impact on the species and its habitat under likely climate change scenarios if we are to anticipate and manage the impacts of climate change. This will require a combination of research and the development of in-house capacity for the collection of relevant data and its application in climate change modelling.

Jurisdictional Collaboration

As Curlew Sandpiper is a migratory species, the development of any policies and action/recovery plans should be discussed between relevant jurisdictional entities.

Ngunnawal Community Engagement

The ACT Government should actively facilitate, the inclusion of the Ngunnawal people in the conservation of this species and its habitat as part of Ngunnawal Country. Reference to the draft Cultural Resource Management Plan (ACT Government in prep.) would be useful to inform culturally appropriate resource

management including of native species that aligns with achieving conservation outcomes for the species.

OTHER RELEVANT ADVICE, PLANS OR PRESCRIPTIONS

- Commonwealth Conservation Advice – Curlew Sandpiper (DCCEEW 2024)
- ACT Action Plan – Migratory Species Action Plan (ACT Government 2018)

LISTING BACKGROUND

Curlew Sandpiper is a listed Marine Species and Migratory Species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is also listed as a Critically Endangered species under the EPBC Act, effective 26 May 2015. It was reassessed under the EPBC and on 5 January 2024 is retained as Critically Endangered under Criterion 1 (A2bce+3ce+4bce) of the EPBC Act. In 2025, under the *Nature Conservation Act 2014*, the ACT Scientific Committee recommended the Curlew Sandpiper be listed in the Critically Endangered category in the ACT Threatened Native Species List to align with the EPBC Act listing.

ACTION PLAN DECISION

The ACT Scientific Committee does not recommend that the Minister for the Environment should make the decision to have an action plan for the species in the ACT under the *Nature Conservation Act 2014* at this time provided the provisions of the ACT *Action Plan for Listed Migratory Species* (ACT Government 2018) are strengthened to protect important habitat with an adaptive management and monitoring approach. Actions for shore birds, including the Curlew Sandpiper are included in that plan, but need to be strengthened to include guidance for the conservation of threatened species and their habitats, especially relating to dealing with the impacts from urban development.

A National Recovery Plan is not required to be prepared for the species (DCCEEW 2024) as the approved Commonwealth Conservation Advice is deemed to be an effective, efficient and responsive document to guide the implementation of priority management actions, mitigate key threats and support the recovery for the species. It is considered to support the species recovery by identifying priority actions, stakeholders for engagement, and the survey and research priorities to facilitate a better understanding of key threats as well as biological and ecological knowledge gaps (DSSEEW 2024).

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FURTHER INFORMATION

Further information on the related Action Plan or other threatened species and ecological communities can be obtained from: Environment, Planning and Sustainable Development Directorate (EPSDD). Phone: (02) 132281, EPSDD–Environment website: https://www.act.gov.au/environment

ATTACHMENT A: LISTING ASSESSMENT (DCCEEW 2024)

THREATENED SPECIES SCIENTIFIC COMMITTEE

Established under the *Environment Protection and Biodiversity Conservation Act 1999*

The Threatened Species Scientific Committee finalised this assessment on 7 June 2023.

Attachment A: Listing Assessment for *Calidris ferruginea*

Reason for assessment

This assessment follows evaluation by experts of the conservation status of the subspecies in accordance with the Action Plan for Australian Birds 2020 (Garnett and Baker 2021).

Assessment of eligibility for listing

This assessment uses the criteria set out in the EPBC Regulations. The thresholds used correspond with those in the IUCN Red List criteria except where noted in criterion 4, sub-criterion D2. The IUCN criteria are used by Australian jurisdictions to achieve consistent listing assessments through the Common Assessment Method (CAM).

Key assessment parameters

Table 3 includes the key assessment parameters used in the assessment of eligibility for listing against the criteria. The definition of each of the parameters follows the Guidelines for Using the IUCN Red List Categories and Criteria.

Table 3 Key assessment parameters

Metric	Estimate used in the assessment	Minimum plausible value	Maximum plausible value	Justification
Number of mature individuals	40,100	8,100	125,300	The estimated population of curlew sandpipers in the East Asian - Australasian Flyway in 2016 was 90,000 birds, of which 45,500 were thought to come to Australia (Hansen et al. 2016). The estimated Australian population in 2020 (40,100 mature individuals) is based on an extrapolation of the 2016 data using trends derived from Clemens et al. (2016, 2019), Clemens (2017) and Studds et al. (2017).
Trend	Declining			Clemens et al. 2021; Rogers et al. 2023
Generation time (years)	5.5	5.2	5.8	Bird et al. 2020
Extent of occurrence	10,900,000 km²	10,400,000 km²	11,400,000 km²	Curlew Sandpipers are widespread in coastal areas and to lesser extent at far inland wetlands (Weller et al. 2020).
Trend	Stable			Clemens et al. 2021
Area of Occupancy	8,000 km²	8,000 km²	8,000 km²	Estimated and minimum AOO is based on the number of 2x2 km squares encompassing all records since 1990; the highest assumes true AOO ≥50% higher.

Metric	Estimate used in the assessment	Minimum plausible value	Maximum plausible value	Justification
AOO is a standardised spatial measure of the risk of extinction, that represents the area of suitable habitat known, inferred or projected to be currently occupied by the taxon. It is estimated using a 2 x 2 km grid to enable comparison with the criteria thresholds. The resolution (grid size) that maximizes the correlation between AOO and extinction risk is determined more by the spatial scale of threats than by the spatial scale at which AOO is estimated or shape of the taxon's distribution. It is not a fine-scale estimate of the actual area occupied. In some cases, AOO is the smallest area essential at any stage to the survival of existing populations of a taxon (e.g. breeding sites for migratory species).				
Trend	Stable			Clemens et al. 2021
Number of subpopulations	1	1	1	Clemens et al. 2021
Trend	Stable			Clemens et al. 2021
Basis of assessment of subpopulation number	No genetic evidence but birds are assumed to mix freely across the breeding sites, but the assessment is still based on the flyway subpopulation, not species trends.			
No. locations	>10			Clemens et al. 2021
Trend	Not calculated			Clemens et al. 2021
Basis of assessment of location number	The spatial nature of the threats is such that there are >10 geographically or ecologically distinct areas in Australia where a single threatening event could affect all individuals of the species present within a period of one generation.			
Fragmentation	Not severely fragmented.			
Fluctuations	Not subject to extreme fluctuations in EOO, AOO, number of subpopulations, locations or mature individuals.			

Criterion 1 Population size reduction

Reduction in total numbers (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered **Very severe reduction**	**Endangered** **Severe reduction**	**Vulnerable** **Substantial reduction**
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3, A4	≥ 80%	≥ 50%	≥ 30%

A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.

A2 Population reduction observed, estimated, inferred or suspected in the past where the causes of the reduction may not have ceased OR may not be understood OR may not be reversible.

A3 Population reduction, projected or suspected to be met in the future (up to a maximum of 100 years) [*(a) cannot be used for A3*]

A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.

Based on any of the following

(a) direct observation [except A3]
(b) an index of abundance appropriate to the taxon
(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
(d) actual or potential levels of exploitation
(e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites

Criterion 1 evidence

Eligible under Criterion 1 A2bce+3ce+4bce for listing as Critically Endangered

Several studies have recorded declines of curlew sandpiper with the following change over three generations: −81 percent (Clemens et al. 2016), −72 percent (Studds et al. 2017), −22 percent (Clemens 2017), −50 percent (waterbird meta-analysis; Clemens et al. 2019) and −41% (Clemens et al. 2019). These estimates suggest there was a rapid decline at least until ~ 2010 (Garnett et al 2011).

The most recent analysis by Rogers et al. (2023) estimated the mean change between 1993 and 2021 was -6.4% annualy for an estimated total decline of -84.5% (95%CI: -90.9, -74.3). This is equivalent to a decline of -53% (95%CI: -72.3, -18.7) over three generations. The mean annual change in the last 10 years (2012-2021) was -3.8% (95%CI: -10.2, 3.4), suggesting the decline is continuing (Rogers et al. 2023). This decline is lower than many previous reports. This may indicate that the decline of this species has slowed and may even have reversed in the past decade. However, given the severe reduction in population size estimated by earlier studies, a listing of Critically Endangered is appropriate until population stabilisation can be confirmed over coming years.

Noting the variable trends observed in Australia overtime and ongoing threats in the East Asian – Australasian Flyway, the Committee considers that the species has undergone a very severe reduction in numbers over three generations, and the cause has not ceased. Therefore, the species has met the relevant elements of Criterion 1 to make it eligible for listing as Critically Endangered.

Criterion 2 Geographic distribution as indicators for either extent of occurrence AND/OR area of occupancy

		Critically Endangered Very restricted	Endangered Restricted	Vulnerable Limited
B1.	Extent of occurrence (EOO)	**< 100 km²**	**< 5,000 km²**	**< 20,000 km²**
B2.	Area of occupancy (AOO)	**< 10 km²**	**< 500 km²**	**< 2,000 km²**
AND at least 2 of the following 3 conditions:				
(a)	Severely fragmented OR Number of locations	**= 1**	**≤ 5**	**≤ 10**
(b)	Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals			
(c)	Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals			

Criterion 2 evidence

Not eligible

The curlew sandpiper's EOO is estimated at 10,900,000 km² (range 10,400,000–11,400,000 km²) and its AOO is estimated at 8,000 km² (range 8,000–12,000 km²) (Clemens et al. 2021). The estimated and minimum AOO is based on the number of 2x2 km squares encompassing all records since 1990; the highest assumes true AOO is more than 50 percent higher (Clemens et al. 2021). The EOO and AOO of the species is thought to be stable. The species is not severely fragmented and is not subject to extreme fluctuations in EOO, AOO, number of subpopulations, locations or mature individuals (Clemens et al. 2021). Therefore, the species has not met all the requirements of this criterion.

Criterion 3 Population size and decline

	Critically Endangered Very low	Endangered Low	Vulnerable Limited
Estimated number of mature individuals	< 250	< 2,500	< 10,000
AND either (C1) or (C2) is true			
C1. An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future)	Very high rate 25% in 3 years or 1 generation (whichever is longer)	High rate 20% in 5 years or 2 generation (whichever is longer)	Substantial rate 10% in 10 years or 3 generations (whichever is longer)
C2. An observed, estimated, projected or inferred continuing decline AND its geographic distribution is precarious for its survival based on at least 1 of the following 3 conditions:			
(a) (i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
(a) (ii) % of mature individuals in one subpopulation =	90 – 100%	95 – 100%	100%
(b) Extreme fluctuations in the number of mature individuals			

Criterion 3 evidence

Not eligible

The number of mature curlew sandpipers is estimated to be 40,100 (range 8,100–125,300). The number of subpopulations is assumed to be 1, based on the species being able to mix freely across the breeding sites. Therefore, the species has not met all the requirements of this criterion.

Criterion 4 Number of mature individuals

	Critically Endangered Extremely low	Endangered Very Low	Vulnerable Low
D. Number of mature individuals	< 50	< 250	< 1,000
D2.[1] *Only applies to the Vulnerable category* Restricted area of occupancy or number of locations with a plausible future threat that could drive the species to critically endangered or Extinct in a very short time			D2. Typically: area of occupancy < 20 km² or number of locations ≤ 5

[1] The IUCN Red List Criterion D allows for species to be listed as Vulnerable under Criterion D2. The corresponding Criterion 4 in the EPBC Regulations does not currently include the provision for listing a species under D2. As such, a species cannot currently be listed under the EPBC Act under Criterion D2 only. However, assessments may include information relevant to D2. This information will not be considered by the Committee in making its recommendation of the species' eligibility for listing under the EPBC Act, but may assist other jurisdictions to adopt the assessment outcome under the *common assessment method*.

Criterion 4 evidence

Not eligible

The total number of mature individuals is estimated to be 40,100 (range 8,100–125,300). The estimated Australian population of curlew sandpiper of 40,100 mature individuals is based on an extrapolation of the 2016 data using trends derived from Clemens et al. (2016, 2019) and Studds et al. (2017). Therefore, the species has not met all the requirements of this criterion.

Criterion 5 Quantitative analysis

	Critically Endangered Immediate future	Endangered Near future	Vulnerable Medium-term future
Indicating the probability of extinction in the wild to be:	≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)	≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)	≥ 10% in 100 years

Criterion 5 evidence

Insufficient data to determine eligibility

Population viability analysis has not been undertaken. Therefore, there is insufficient information to determine the eligibility of the species for listing in any category under this criterion.

Adequacy of survey

The survey effort has been considered adequate and there is sufficient scientific evidence to support the assessment.

Public consultation

Notice of the proposed amendment and a consultation document was made available for public comment for 30 business days between 30 March 2023 and 15 May 2023. Any comments received that were relevant to the survival of the species were considered by the Committee as part of the assessment process and provided to the Minister for the Environment with the Committee's advice.

Listing and Recovery Plan Recommendations

The Threatened Species Scientific Committee recommends:

i) that the list referred to in section 178 of the EPBC Act not be amended by **retaining** *Calidris ferruginea* in the Critically Endangered category.

ii) that there not be a Recovery Plan for this species in accordance with the provisions of the EPBC Act and the Committee's conservation planning principles as follows:

- An approved conservation advice is an effective, efficient and responsive document to guide the implementation of priority management actions, mitigate key threats and support the recovery for this species.
- An approved conservation advice would support the species recovery by identifying priority actions, stakeholders for engagement, and the survey and research priorities to facilitate a better understanding of key threats as well as biological and ecological knowledge gaps.
- The threats facing the entity, and the recovery actions needed can most effectively be guided via an approved conservation advice.
- The threats facing the entity, and the recovery actions needed can most effectively be guided via an approved conservation advice.

iii) Having regard to the above factors, a recovery plan is not required as it would not provide a significant conservation planning benefit above existing mechanisms.