

Threatened Species Assessment

Actitis hypoleucos Common Sandpiper

Taxonomy

Actitis hypoleucos (Linnaeus, 1758)

Current conservation status

Categorised as Vulnerable in the 2013 Advisory list of threatened vertebrate fauna in Victoria (DSE 2013).

Proposed conservation status

Vulnerable in Victoria

Criterion D

For species that also occur outside of Victoria, the *Guidelines for Application of IUCN Red List Criteria at Regional and National Levels: Version 4.0 (2012)* apply. This may lead to an adjustment of the threat category, to reflect the influence of adjacent populations.

The regional assessment (Victoria only) delivers a result of Endangered, based on the small population size. However it has been downgraded to Vulnerable to account for the influence of interstate and international populations that reduce the extinction risk in Victoria.

Species Information

Description and Life History

Common Sandpipers nest mainly in cool temperate to low arctic regions of the northern hemisphere, usually near freshwater habitats (especially waterways). Adults migrate annually to non-breeding areas in the tropics and southern hemisphere, where they are widely distributed at rather low densities, along coasts and freshwater bodies. Unlike most migratory shorebirds they do not typically gather in flocks, and they often use steep shorelines avoided by other shorebird species. They arrive in northern Australia late July-September and migrate north March to April. The immatures migrate north with adults when they are less than a year old, and few or no Common Sandpipers remain in Australia in the winter months.

Generation Length

The generation length of Common Sandpipers is inferred to be 6.8 years. This figure is based on an estimate from IUCN (2018). It appears to be based on European studies. There is no information on Common Sandpiper generation times in this flyway, but there is no reason to believe it differs substantially in ecology. It first breeds in its second calendar year (Rogers et al. 2006).

Distribution

The taxon is widespread in the Old World, breeding in cool temperature and low arctic latitudes from western Europe to far eastern Asia, migrating annually to non-breeding areas in the tropics and southern temperate latitudes of Africa, Asia and Australasia. They have been recorded across much of Australia, but numbers and reporting rates are much higher in the north of the continent (Higgins and Davies 1996). Within Victoria the taxon has been recorded at scattered coastal sites from SA border to the NSW border, and at scattered inland wetlands throughout the lowlands. There are some sites where birds turn up annually, but the densities are low.

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Habitat

Common Sandpipers use a diverse range of habitats near water, especially tidal waters and running waters. They have a preference for narrow, muddy and often steep shorelines that are seldom used by other shorebird taxa. The Australian stronghold is probably in mangrove-lined tidal creeks. Many Victorian records are from artificial habitats, such as the banks of sewage ponds. Roost sites used by coastal birds include rocks and tree branches near water, as well as artificial structures such as posts, jetties and moored boats (Emison et al. 1987; Higgins and Davies 1996).

Threats

There are not known to be any specific threats to Common Sandpipers in Victoria. Like all shorebirds, they are potentially vulnerable to disturbance, introduced predators and pollutants that reduce abundance of benthic infauna. However, they often use arterial habitats near people, suggesting they are relatively tolerant of anthropogenic habitat changes.

Given their ability to use narrow shorelines, including those in artificial wetlands, it is unlikely that they are as heavily influenced by habitat loss as those migratory shorebird taxa that depend on large tidal flat systems.

IUCN Criteria

Criterion A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered	Endangered	Vulnerable
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3, A4	≥ 80%	≥ 50%	≥ 30%
<p>A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.</p> <p>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.</p> <p>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]</p> <p>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.</p> <p>based on any of the following:</p> <ul style="list-style-type: none"> (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 			

Evidence:

Ineligible under Criterion A

There is insufficient evidence to determine whether there has been or will be a reduction in population sufficient to meet any threshold for Criterion A.

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Criterion B. Geographic range in the form of either B1 (extent of occurrence) and/or B2 (area of occupancy)			
	Critically Endangered Very restricted	Endangered Restricted	Vulnerable Limited
B1. Extent of occurrence (EOO)	< 100 km ²	< 5,000 km ²	< 20,000 km ²
B2. Area of occupancy (AOO)	< 10 km ²	< 500 km ²	< 2,000 km ²
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			

Evidence:

Ineligible under Criterion B

The Extent of Occurrence (EoO) across the taxon's range, based on accepted, post-1970 records in the Victorian Biodiversity Atlas (VBA), is estimated to be 196,808 km² which exceeds the threshold for criterion B.

The Area of Occupancy (AoO) across the taxon's range, based on 2 x 2 km grids derived from accepted, post-1970 records in the VBA is estimated to be 973 km², but other thresholds under this criterion have not been met.

Criterion C. Small Population size and decline				
		Critically Endangered	Endangered	Vulnerable
Number of mature individuals		< 250	< 2,500	< 10,000
AND at least one of C1 or C2				
C1	An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future):	25% in 3 years or 1 generation (whichever is longer)	20% in 5 years or 2 generations (whichever is longer)	10% in 10 years or 3 generations (whichever is longer)
C2	An observed, estimated, projected or inferred continuing decline AND least 1 of the following 3 conditions:			
(a)	(i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
	(ii) % of mature individuals in one subpopulation =	90 – 100%	95 – 100%	100%
(b) Extreme fluctuations in the number of mature individuals				

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Evidence:

Ineligible under Criterion C

The taxon is estimated to have 72 to 181 (midpoint 162) mature individuals, but other thresholds under this criterion have not been met.

Criterion D - Very small or restricted populations			
	Critically Endangered	Endangered	Vulnerable
Number of mature individuals (observed or estimated)	<50	<250	<1,000
D2: Only applies to the VU 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: AoO < 20 km ² or number of locations ≤ 5

Evidence:

Eligible under Criterion D as Vulnerable

The taxon is estimated to have 72 to 181 (midpoint 162) mature individuals. The population of Common Sandpipers in the East-Asian Australasian Flyway has been estimated to be 190,000 (Hansen et al. 2016), with an Australian population of 2,500. The stronghold of the species in this flyway is likely to be in the tropics of south-eastern Asia.

Within Victoria, the average count is 1.55 birds (VBA) and the birds have been recorded at 117 sites. Multiplying the two gives an estimate of $117 \times 1.55 = 181$ Common Sandpipers. This is likely an overestimate of Victorian numbers, given that there may be some overlap of adjacent sites in the database resulting in double-counting of individuals. Moreover, not all Victorian records would have been mature adults and the proportion of immatures in Victorian populations has not been assessed. Analogies with other Victorian wader taxa suggest that the long term average is likely to be of the order of 10-20% (Minton et al. 2016), suggesting the number of mature individuals is likely to be $181 \times (1-0.15) = 162$ birds. This number may be lower still if immatures predominate adult birds in Victoria (a possible scenario as Victoria is at the southern edge of the non-breeding range). For the lower limit of the range, given above, the proportion of immatures could be as high as 60% (by comparison with Red Knot, the taxon with the highest proportion of immatures known in Victoria (Minton et al. 2016): $181 \times (1-0.60) = 72.4$).

Of the 190,000 Common Sandpipers in Victoria, only 2,500 occur in Australia and only 70-180 are suspected to occur in Victoria.

The taxon is assessed as Endangered under this criterion, but it has been downgraded to Vulnerable to account for the influence of interstate and international populations that reduce the extinction risk in Victoria.

Criterion E (Quantitative Analysis) was not addressed as the taxon does not have a detailed Population Viability Analysis.

References

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