



Tringa glareola Wood Sandpiper

Taxonomy

Tringa glareola Linnaeus, 1758

Current conservation status

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

Proposed conservation status

Endangered in Victoria

Criterion C2a(ii); 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) results in Critically Endangered. The birds are not regarded as threatened in other Australian states, so this assessment has been downgraded to Endangered EN^o to account for the influence of interstate and international populations that reduce the extinction risk in Victoria.

Species Information

Description and Life History

The Wood Sandpiper is a small, thin wader, and member of the Tringinae family. It has a length of 19-23 cm, a wingspan of 56-57 cm and a weight of 55g. The taxon has a short straight bill and long legs. It is similar in size to the Sharp-tailed Sandpiper, *Calidris acuminata*, however has a longer neck and slimmer build, slightly longer, straighter bill and longer legs. The taxon is a dark grey-brown or plain brown above and spotted paler and white below with a greyish wash on the breast. It has dark streaking on the foreneck and breasts as well as some barring on the fore-flanks. In all plumages the taxon shows a white supercilium, extending well behind the eye with greenish or yellow legs (Higgins and Davies 1996).

The Wood Sandpiper is seen singly, in pairs, or small flocks; occasionally in flocks of hundreds. They associate freely with other waders and often feed in scattered groups. They are wary, nervous and excitable, particularly in flocks, although solitary birds will sometimes tolerate close approach (Higgins and Davies 1996). They nest in cool temperate and southern Arctic regions of northern Asia and Europe, mainly in Siberia. A population migrates annually to Australia, both adults and immatures arriving August-November, and departing on the northwards migration in about March to April. Most first-year birds migrate north (presumably to breed) when they are 1 year old, with very few remaining in Australia during the Australian winter (Rogers et al. 2006).

Generation Length

The generation length of the Wood Sandpiper is inferred to be 5.2 years. This is based on data from Europe on IUCN (2018). No survival data or substantial banding data are available from the East Asian Australasian Flyway, but age of first breeding is similar to that in Europe (Rogers et al. 2006).

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Distribution

The taxon is widespread in Australia, with records from inland wetlands across much of the continent. Numbers and reporting rates are higher in northern and western Australia than in Victoria. The taxon is quite sparsely distributed, and moves readily to exploit wetlands with suitable water levels. It is most often seen singly or in small groups, and does not form large flocks. It is unusual to encounter >100 on an Australian wetland, and unusual to encounter as many as 10 individuals on a wetland in southern Australia.

Habitat

The birds are mainly found in the shallows of freshwater wetlands with patches of short emergent or fringing vegetation. A large proportion of wetlands providing suitable habitat for Wood Sandpipers are temporary, and are most suitable for the taxon when floodwaters are receding.

Threats

Wood Sandpipers are likely to be impacted by loss and degradation of wetlands, especially the loss of temporary flooding regimes, or much less frequent flooding, in floodplain wetlands of much of the Murray Darling basin through water diversions for agriculture. Prolonged drought (potentially exacerbated by climate change) also reduces potential foraging areas for the taxon. Alterations to water management (e.g. conversion of temporary wetlands into permanent irrigation storages or sinks) also make wetlands unsuitable for Wood Sandpipers.

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%
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			

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:

Eligible under Criterion B as Vulnerable

The Area of Occupancy (AoO) is estimated to be 384 km², based on 2 x 2 km grids derived from accepted, post-1970 records in the Victorian Biodiversity Atlas (VBA).

The taxon is considered to occur in one location as all key identified threats apply across its range and can rapidly affect all individuals of the taxon present.

It has a continuing decline in (iii) and (v) above, as its wetland habitat is affected by the identified threats.

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

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:

Eligible under Criterion C as Endangered

The taxon is estimated to have between 1 and 50 mature individuals. Wood Sandpipers are uncommon in Victoria, usually seen singly or in small groups of 2-3 birds; the highest count from a Victoria wetland is 10 individuals (average 2.2). In some years (when there have been inland rains) it is possible that no Wood Sandpipers reach Victoria at all. In most years however there is a small scattering of records; in the VBA between 1973 and 2016 the number of sites where Wood Sandpipers were recorded each year ranged from 0 to 8. Hansen et al (2016) estimated that on average only one Wood Sandpiper occurs in Victoria per year. This is likely to be an underestimate, as the taxon uses small inland freshwater wetlands which are not intensively sampled by shorebird count programs. Nevertheless, finding a Wood Sandpiper is a noteworthy event for Victorian birdwatchers and it is unlikely that more than 50 occur annually in the state.

The number of mature individuals is inferred to continue to decline, and the percentage of mature individuals in one subpopulation is 95-100 %.

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

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 Endangered

The taxon is estimated to have between 1 and 50 mature individuals.

The taxon is assessed as Critically Endangered under this criterion, but it has been downgraded to Endangered to account for the influence of international and interstate 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

- DSE (2013). *Advisory List of Threatened Vertebrate Fauna in Victoria - 2013*. Department of Sustainability and Environment, Melbourne. Retrieved from: https://www.environment.vic.gov.au/__data/assets/pdf_file/0014/50450/Advisory-List-of-Threatened-Vertebrate-Fauna_FINAL-2013.pdf
- Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) *Revision of the East Asian-Australasian Flyway Population Estimates for 37 listed Migratory Shorebird Species*. Report for the Department of the Environment. BirdLife Australia, Melbourne.
- Higgins, P.J. and S.J.J.F. Davies, eds (1996). *Handbook of Australian, New Zealand and Antarctic Birds. Volume Three - Snipe to Pigeons*. Melbourne, Victoria: Oxford University Press.



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Rogers, D.I., Minton, C.D.T., Boyle, A.N., Hassell, C.J. and Silcocks, A. (2006) Growing up slowly by the sea-side: age of first northwards migration of shorebirds from Australian non-breeding grounds. Chapter 10 in Rogers, D.I. 2006. *Hidden costs: challenges faced by migratory shorebirds living on intertidal flats*. Charles Sturt University, Albury.