

BirdLife Australia Rarities Committee Unusual Record Report Form

Section A: Submitter details	
Your name(s) Joint submissions are fine	Paul Taylor and David James
Your email, phone or address	

Section B: Record details	
Common and scientific names Include subspecies if relevant	Western Sandpiper <i>Calidris mauri</i>
Site location (with GPS if possible)	Bald Hill Beach, northern Gulf of St Vincent, SA 34.45° S, 138.27° E
Date(s) and time(s) of record (First and last date of occurrence if known)	19 April 2022, 1530 to 1600 hours
How many individuals were there?	One
What was the distance to the bird(s)?	10-20 m
Habitat description	Coastal mudflat with some stony areas.
Sighting conditions (e.g. weather, visibility, light conditions)	Fine, partly cloudy, light south wind. Good visibility
How confident are you in the identification (as a %) and why?	100%. PT was unsure of the identification in the field. We undertake a thorough analysis, below. However, we recommend that expert opinion be sought from shorebird experts in the northern hemisphere.
Did you find and/or identify the bird initially? Who else recorded the bird and do they agree with the identification?	PT found the bird while birding alone, and no one else saw it. PT recognised it as different to the Red-necked Stints <i>C. ruficollis</i> (RNST) in company. He posted photos to Australian Twitchers, where it was identified by several people as Western Sandpiper (WESA). However, some also suggested it might be a long-billed RNST – we address this possibility in detail below.
What experience have you had with this species?	PT has no prior experience with WESA. DJ has seen thousands in the US, although decades ago. This submission is based on a comparison of PT's photos with the published literature.
Has this species been seen at this location before? When?	WESA has not been recorded in Australia before.
Have photographs of the bird or discussion of it occurred on the internet? (Please provide the site name, a summary, electronic link, etc.)	Australian Twitchers: https://www.facebook.com/groups/718576241555767/posts/5002536423159706 South Aussie Birding:
Do you permit BARC to display your images etc. electronically (credited with your name)	Yes. Photos by Paul Taylor

Section C: Supporting evidence

Part 1. Summary of the subject bird



In the field, PT noted that the single bird was seen among a flock of about 20 Red-necked Stints. Long bill noticeable. Similar size to the stints with fairly plain grey upperparts with fine shaft streaks on feathers. As the tide came in, they flew in to roost and all appeared to have dark-centred rumps. Photos taken within 10 metres while roosting. The bird was quite easy to see with the plain grey back. It seemed slightly shyer and more restless than the stints. The tide was high and the flock flew off when they had little room to roost on the beach.

The photos above show the subject bird alongside Red-necked Stints. Compared with RNST, it shows:

- similar size;
- a much longer bill;
- a slightly decurved bill;
- a weak gape notch;
- a broad base to the bill with high extension of the base of the culmen onto the forehead;
- paler and plainer dorsal contour feathers (scapulars, mantle, crown) with dark markings restricted to shaft streaks;
- finer streaking on the sides of the breast;
- a bolder supercilium not as blurred above the eye;
- effectively no primary projection;
- longer legs.

These features are discussed in more detail below.

The close similarity in size and shape to RNST means that this bird must be a stint or 'peep', of which there are seven species worldwide in the genus *Calidris*. Three species are easily eliminated in all plumages by yellowish legs, and either evident brown to rufous tones in the crown and scapulars, or extensively dark head and breast (Long-toed Stint *C. subminuta*, Least Sandpiper *C. minutilla*, and Temminck's Stint *C. temminckii*) (Johnsson & Grant 1984; Hayman et al. 1986; Howell et al. 2014). This leaves four species, Red-necked Stint, Little Stint *C. minuta*, Semipalmated Sandpiper *C. pusilla*, and Western Sandpiper (Hayman et al. 1986).

The foot structure readily divides these into two pairs, the Old World stints and the New World peeps, but unfortunately the foot structure is not visible in any of the photographs. The stints also have a prominent gape notch whereas the peeps tend to have only a weak gape notch (like the subject bird) or none at all (Howell et al. 2014).



Part 2. Ageing

In the old terminology, it is a first winter bird.

It appears to show three generations of contour feathers. The mantle and upper scapulars are the most heavily-worn and thus the oldest. The lower scapulars are only slightly worn, so a newer generation. There are at least two growing feathers that may represent a third generation.

Stints show three generations of contour feathers in only three scenarios:

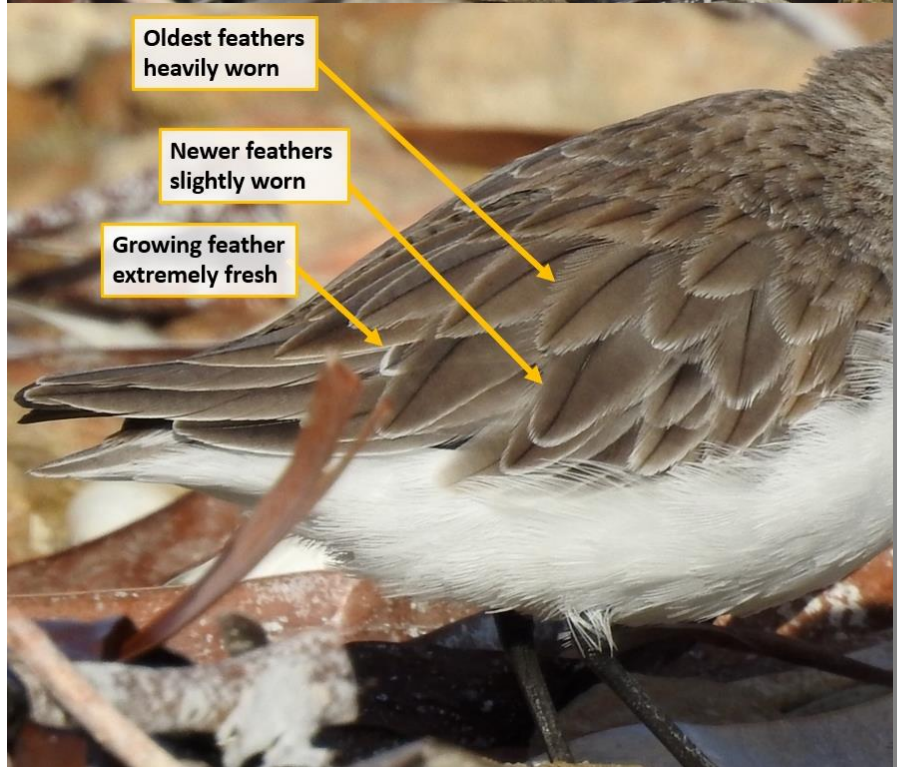
1) In adult plumage, when they are moulting from alternate plumage to basic plumage, they can have an old generation of basic, a younger generation of alternate, and a growing generation of basic.

2) In the first cycle when they have an inserted moult leading to formative plumage, they can have an old generation of juvenile (1st basic), a younger generation of formative, and a growing generation of 1st alternate.

3) Later in the first cycle they can show an old generation of formative, a younger generation of 1st alternate, and a growing generation of 2nd basic.

This bird has no adult alternate plumage, so it is not an adult (not scenario 1). The oldest generation is grey with fine dark shaft streaks (basic-like), not bold dark rosethorns (juvenile), so not scenario 2. It is too early in the cycle (April) for a Holarctic sandpiper to be moulting into 2nd basic (Howell 2010), so not scenario 3.

The likely explanation then, is that either or both of the pre-formative and pre-first alternate moults have been protracted and led to feathers of the same generation with very different states of wear (c.f. Howell 2010). The growing feathers would thus be first alternate.



Part 3. Bill length and shape

The bill-length of the subject bird is close to 2.75 times the loral length, and the bill is clearly decurved.

Johnsson & Grant (1984) stated that “On classic Western, bill obviously long (2½-3 times loral distance)” (p. 304). Conversely, they stated for Red-necked Stint that “Bill length short (1½-2 times loral distance)” (p. 302).

The photo is not perfectly side on and some foreshortening is apparent, but the lores and the bill are in the same plane, so any error is probably much less significant than the large difference between WESA and RNST.

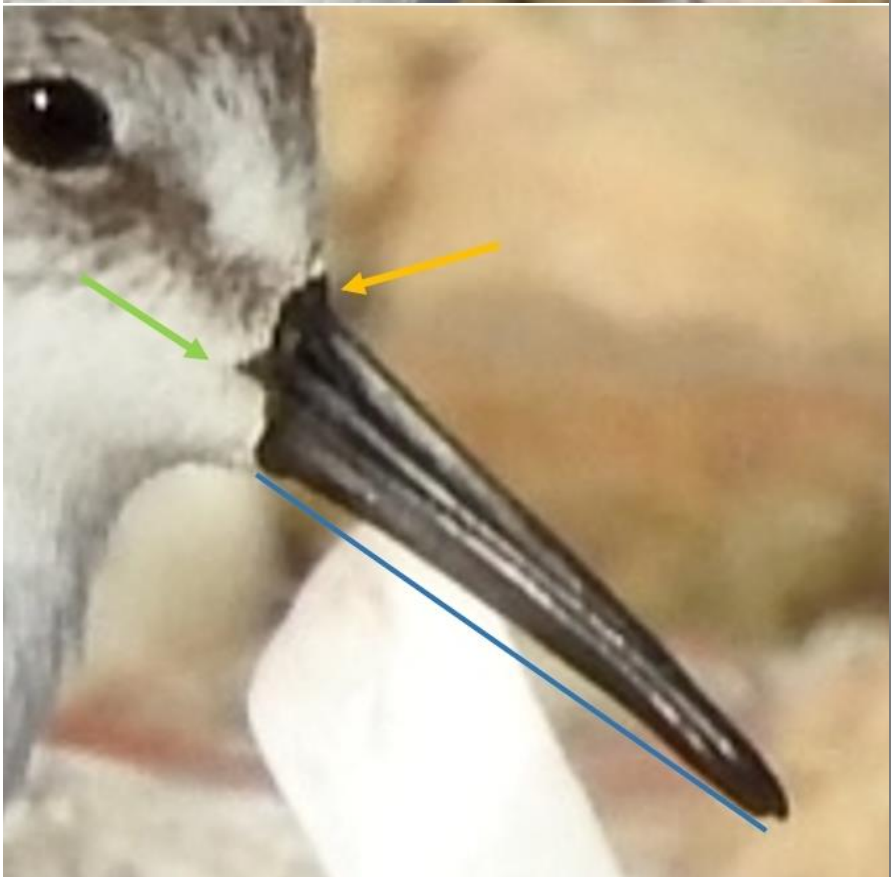
The ratio of ~2.75 puts the length of the bill well outside the normal range of RNST. It does not prove that an abnormal RNST could not have a bill that long.

In addition, the bill of Western is slightly decurved and that of RNST is close to straight (Johnson & Grant 1984; Veit & Johnson 1984; Chandler 1989; Howell et al 2014).

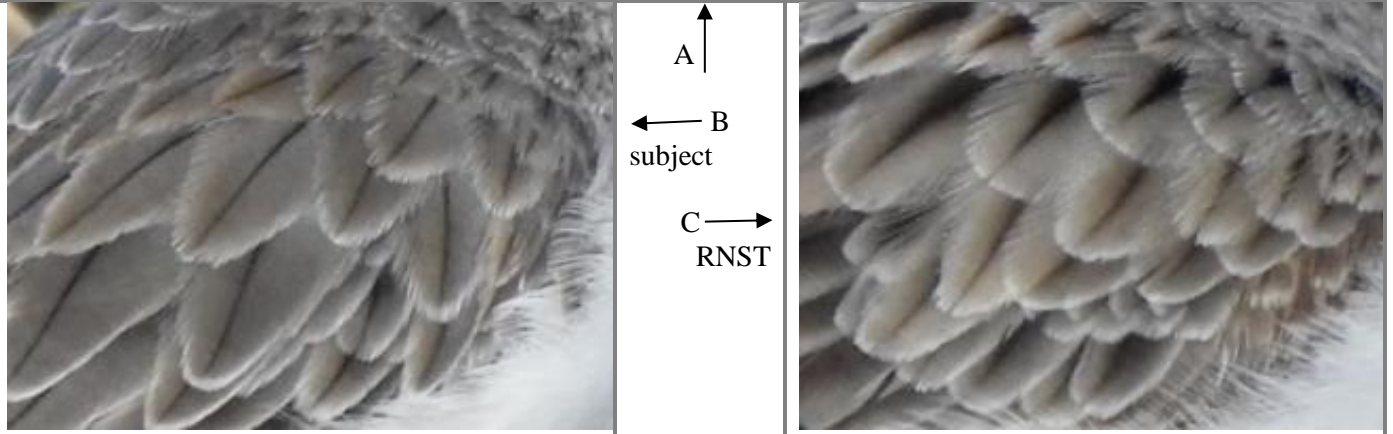
The lower photo shows three features: The slightly decurved bill, compared with the straight blue line.

The gape notch (green arrow) is supposedly prominent in RNST and Little Stint, and absent or weak in WESA and Semipalmated Sandpiper (Howell et al. 2014). In this crop it looks prominent. It maybe subtly weaker compared to the RNSTs alongside (see for instance the photos in Parts 1 and 4), but it is not convincing. Nevertheless, a prominent gape notch should not eliminate WESA (Howell et al. 2014).

The high base to the culmen, extending slightly up onto the forehead (yellow arrow) is characteristic of WESA in the opinion of DJ. It is not referred to directly in the literature as far as we know. However, it is not based on this bird alone. RNST never shows this feature and it is evident in many photos of WESA (DJ, pers. obs.). It really just another way of defining the broad base to the bill, which is mentioned extensively in the literature (e.g. Johnsson & Grant 1984; Veit & Johnsson 1984; Chandler 1989; Howell et al. 2014).



Part 4 Upperparts streaking



A) Subject bird (left) alongside a RNST. Note the different patterning of the scapulars, mantle and crown.

B) The subject bird has sharp dark streaks restricted to the shafts of all scapulars of mixed ages.

C) The RNST has the dark centres including the shafts and an extensive amount of the inner and outer webbing, and a bleeding or fading effect out away from the shaft toward the margins, making the pattern slightly more blurry.

These differences are consistent with average differences between WESA and RNST that are described and illustrated in Veit & Johnsson (1984), Johnsson & Grant (1984), Chandler (1989), Beaman & Madge (1998), Howell et al. (2014) and elsewhere.

Part 5. Streaking on sides of breast



Upper row, subject bird: The streaking on the side of the breast is confined to a small area, the darkness is mostly confined to the shafts, and the webs are mostly white to very pale grey, so the background does not look mottled.

Lower row accompanying RNSTs: In the accompanying RNSTs, the streaked area is slightly more extensive, the dark streaks are broader and extend onto the webs, and the outer webs are grey fading to white near the margins. The overall effect is smudgy (notwithstanding that the RNST images are less sharp).

These differences are consistent with average differences between WESA and RNST that are described and illustrated in Veit & Johnsson (1984), Johnsson & Grant (1984), Chandler (1989), Beaman & Madge (1998) and Howell et al. (2014).

Part 6. Supercilium



The subject bird (centre) has a slightly clearer and bolder supercilium than the accompanying RNSTs. It is slightly less interrupted or blurred above the eye and slightly clearer behind the eye. This is subtle and subject to individual variation but consistent with average differences between WESA and RNST described in the literature already cited

Part 7. Primary projection



Upper left: The lower bird is the subject and the upper bird is a RNS. The longest tertial is almost the same length at the longest primary, less than 1 mm shorter in the subject.

Upper right: Subject. The longest tertial is almost the same length at the longest primary, less than 1 mm shorter.

Lower left: RNST. Longest primary distinctly longer than the longest tertial.

Lower right: RNST. Longest primary distinctly longer than the longest tertial.

RNST has the longest wings and longest primary projection of all the stints and WESA has the shortest primary projection (Chandler 1989; Veit & Johnsson 1984; Johnsson & Grant 1984; Beaman & Madge 1998; Howell et al. 2014). There is individual variation, of course, but this is consistent with the average differences between WEAS and RNST as cited in the literature. Note also, that there is no moult of primaries or tertials in first cycle WESA at this time of year (c.f. Howell 2010).

Part 8. Leg length and foot structure



There is only one picture available showing the full tarsus and any parts of the foot. Unfortunately, the presence or absence of palmations cannot be seen, the length of the hind toe is partly obscured. Because the bird is facing obliquely towards the camera, the bill and lores are foreshortened and cannot be measured against the tarsal length.

All that can be said is that both the tarsus and the hind toe look longer than that of a typical RNST, in this photo.



Section E: Confusion species

Please indicate other species that the bird(s) might be confused with and how they can be eliminated

The lack of information about the foot structure is unfortunate, because that would be a smoking gun.

Semipalmated Sandpiper

Shorter, straighter, blunter-tipped bill (including the longest-billed forms from eastern Canada). Slightly longer primary projection. Darker, more blotchy crown pattern. Finer, less smudgy streaks on the side of the breast.

Little Stint

Shorter, straighter bill, fine with narrow base. Slightly longer primary projection. Slightly smaller than RNST. Darker more smudgy streaking on the breast sides forming stronger collar.

Red-necked Stint.

As discussed in detail above. There is no one diagnostic character, given that the amount of individual variation within species. If the bill-length is not beyond the most extreme for RNST then the combination of that, the obvious decurve, and the broad base extending up onto the forehead produce a bill that RNST could surely never show. The fine, clean streaking on the scapulars, mantle, crown and breast sides, the bold supercilium, and the short primary projection all match typical WESA and not typical RNST. It has not been possible to quantify the gape notch, tarsus-length, or hind-toe length, but they do not advance any case for RNST.

Section F: References and aids

Did you use books, journal articles or on-line sites or pages to help you prepare this submission? Which ones?

- Beaman, M. & Madge S. (1998), *The Handbook of Bird Identification for Europe and the Western Palearctic*, Princeton University Press, New Jersey.
- Chandler, R.J (1989), *The MacMillan Field Guide to North Atlantic Shorebirds*. Macmillan Press, London.
- Hayman, P., Marchant, J. & Prater, T. (1986), *Shorebirds: An identification guide to the waders of the world*. Christopher Helm, London.
- Howell, S.N.G. (2010), *Peterson Reference Guide to Molt in North American Birds*. Houghton Mifflin Harcourt, New York.
- Howell, S.N.G., Lewington, I. & Russel, W. (2014), *Rare Birds of North America*. Princeton University Press, Princeton NJ.
- Johnsson, L. & Grant, P.J. (1984), Identification of Stints and Peeps. *British Birds* 77: 293-315.
- Veit, R.R & Jonnson, L. (1984), Field identification of smaller sandpipers within the genus *Calidris*. *American Birds* 38: 853-876.

Would you like to acknowledge the assistance of others in the identification process or preparation of this submission?

Thanks to everyone who commented on Facebook.