Semipalmated Plover *Charadrius semipalmatus* Broome, WA, 6th September 2010 Submission to BARC

Adrian Boyle[1], George Swann[2]

Introduction

On the morning of the 6th of September 2010, Adrian Boyle (AB) was scanning a large flock of shorebirds at a site known as Quarry Beach on the Northern Shores of Roebuck Bay Broome Western Australia 17º 57' 50"S 122º 17' 15"E. Whilst scanning this flock Adrian noticed a small plover that resembled the long-staying Semipalmated Plover (BARC case 873) that had first been discovered at the Broome South Waste Water Treatment Plant (WWTP) on the 23rd of October 2009 and at the time of this sighting was observed there nearly daily.

At first, it was thought that this was the same individual that had just moved to a new area. However, this individual's back appeared slightly darker and the breast band more extensive than the WWTP bird had been showing in its plumage. AB made a quick phone call to George Swann who rushed to the WWTP and confirmed that the 'original' Semipalmated Plover was still present there. Quarry Beach is 7km ENE from the WWTP.

GS and several Broome Bird Observatory staff then joined AB to observe the Quarry Beach individual and the process of its identification between Ringed *Charadrius hiaticula* and Semipalmated Plover *Charadrius semipalmatus* began. The observers had been learning a lot on the identification between these two very similar species over the past 11 months due to the Semipalmated Plover at the WWTP and knew what features were pertinent to look for. Unfortunately, unlike the long-staying bird at the WWTP the Quarry Beach plover was only seen on this one occasion.

The authors believe that this bird was a Semipalmated Plover most likely in its 2nd year of life with its sex unknown.

Figure 1 Semipalmated Plover Quarry Beach 6th September 2010 Photo by Adrian Boyle

Identification
It can be seen in the images provided that this is a plover from the *Charadrius* family and is either a Little-ringed, Semipalmated, or Ringed Plover.

Little Ringed Plovers *Charadrius dubius* have a much finer bill are less dumpy in structure, and also do not have a prominent wing bar. (A large wing bar was observed in the field but no images were obtained). Therefor Little Ringed Plover was quickly eliminated as an option. This just leaves Semipalmated Plover and Ringed Plover to be separated.

The section below has been copied from BARC case 873 and adjusted to suit this sighting.

Key features for separating Semipalmated and Ringed Plovers

Many of the features used to distinguish Semipalmated Plover from Ringed Plover have originated in Europe where the focus is largely on the differences between Semipalmated Plover and the Ringed Plover subspecies *hiaticula* and *psammodroma*. However, the smaller, darker Ringed Plover subspecies *tundrae* and Semipalmated Plover show even more similarities in plumage characteristics. Consistent with the breeding distribution of subspecies *tundra*e in the north of the East Asian-Australasian Flyway, based on plumage characteristics all confirmed Ringed Plovers in Australia are thought to have been of this subspecies. For this reason, it is this ultrataxa pair (*tundrae* subspecies of Ringed Plover and Semipalmated Plover) that warrant most attention in an Australian context.

Features that identify this bird as a Semipalmated Plover (in descending order of importance) are:

1. ***Position of the loral stripe relative to the bill base.*** A key feature to distinguish Semipalmated Plover from Ringed Plover is the point at which the dark loral stripe intersects with the bill base (Mullarney 1991). In Semipalmated Plover the loral stripe intersects with the bill base above the gape line, whereas in Ringed Plover the loral stripe intersects with the bill base below the gape line.
You can see in Figure 1 and 2 that the loral stripe clearly intersected with the bill base at a point above the gape line. Both Richard Chandler and Killian Mullarney pers comm emphasize that they consider the loral stripe position to be a diagnostic character for adult non-breeding Semipalmated Plovers.

2. ***Bill size and shape.*** Semipalmated Plovers have short, stubby, bulbous-tipped bills consistent with this individual. Ringed Plovers have a longer bill than Semipalmated and it remains of even width until narrowing at the tip. You can see in Figure 2 the stubby bill with bulbus tip on this bird.

3. ***Webbing between the toes.*** Semipalmated Plovers have obvious webbing between the outer and middle toes and this fits with this individual. Ringed Plovers webbing between the toes can be variable but generally, they show very little webbing. Semipalmated Plovers always show some webbing between the middle and inner toe. It can be variable in the amount but is always present. Ringed Plovers on average show no webbing in this area but some individuals have been reported to show a tiny amount of webbing here. This individual would have had slightly more webbing in the inner toes when compared to the BARC case 873 individual. You can just see the webbing in Figure 1 but is more obvious in Figure 2. Figure 3 is an enlargement of the toes shown in Figure 2.

4. ***Yellow orbital ring.*** Semipalmated Plovers show a yellow orbital ring in all plumages whereas in Ringed Plover this feature is only present in breeding males (Chandler 2009).
A yellow eye-ring cannot be observed in the images and the authors cannot remember if this was present. However, the authors do believe that it was present, as mentioned earlier they were well aware of how important certain features were to note and the yellow eye ring would have been one of those features. If this individual did not have a yellow eye-ring then the authors would have been trying to claim a Ringed Plover! Email correspondence with Jeff Davies and Danny Rogers on the evening of this observation makes no mention of not seeing an eye ring and the authors feel that this would have been a big talking point in the emails if that feature had not been observed.

5. ***Call***. The call of Semipalmated Plover is considered a diagnostic character to distinguish this species from Ringed Plover. Unfortunately, the bird did not call during the sighting.

6. ***Leg colour.*** Juvenile Semipalmated Plovers have two-toned legs, generally being grey-green on the front and yellow-orange on the rear. Ringed Plovers tend to have brighter more uniform orange legs (Van Duivendijk 2010). The colour of the Ringed and Semipalmated Plovers legs when adult is very similar and both species have reasonably bright orange legs.
This individual showed bright orange legs and were not two-toned.

7. ***Breast band size and shape.*** Breast band size and shape can be a good id feature between Semipalmated and Ringed Plovers, particularly in breeding plumage. However, this bird showed no breeding plumage. The breast band for this individual was on the larger side for Semipalmated but still within the parameters for either species.

8. ***Wing-bar.*** The wing bars of this bird were not seen well due to the fact that the bird was not observed stretching its wings and only observed briefly in flight so the extant of white wing-bar cannot be judged on this individual other than to say it was prominent.

9. ***Extent of supercilium.*** As a general rule, the Semipalmated Plover has a more reduced supercilium in non-breeding plumage. This individual showed a supercilium consistent for Semipalmated Plovers and was slightly narrower behind the eye than the bird in case 873.

10. ***Moult.*** The timing of primary moult is a good feature to separate the tundrae subspecies of Ringed Plover and Semipalmated Plover. However, it did not stretch its wings whilst in view and was only briefly seen in flight once. Therefor presence or absence of moult could not be confirmed.

Ageing of this individual
A 1st year bird should have shown two-toned legs as well as lots of buffy fringes to many of its coverts at this time of the year, which this bird clearly did not. (See Figure 4) Based on the knowledge of the long returning Semipalmated Plover (case 873) we know that the individual always turned up with some retained breeding plumage and we feel if this bird was an adult, that had just returned, then it too would have some retained breeding plumage. However, we are aware this is based only on a very small sample size.

The authors believe that this bird was a Semipalmated Plover most likely in its 2nd year of life with the sex unknown.

Figure 2 Semipalmated Plover Quarry Beach 6th September 2010 Photo by Adrian Boyle

Figure 3 Close up of Figure 2 showing webbing in the inner toes of the left foot. Photo by Adrian Boyle

Figure 4 Semipalmated Plover Quarry Beach 6th September 2010 Photo by Adrian Boyle

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References

BARC Birdlife Australia Rarities Committee web site http://users.bigpond.net.au/palliser/barc/barc-home.html

Beaman, M. & Madge S. (1998), *The Handbook of Bird Identification for Europe and the Western Palearctic*, Princeton, New Jersey.

Bock, W. J. 1959. The status of the Semipalmated Plover. Auk 76:98-100

Brazil M (2009) Field Guide to the Birds of East Asia., Christopher Helm, London.

Carter, Mike (2002), 'Ringed Plover *Charadrius hiaticula tundrae* at Marlo, VIC, from November 2001 to February 2002', *Bird Observer*, #817: 36.

Chandler,R.J. (1987). Mystery photographs British Birds 80: 238-241

Chandler,R.J. (1987). Yellow Orbital Ring of Semipalmated and Ringed Plover. British Birds 80 (5): 241-242

Chandler, R.J. (1989), *The Macmillan Field Guide to North Atlantic Shorebirds*, Macmillan, London.

Chandler, R.J. (2009) Shorebirds of the Northern Hemisphere, Christopher Helm, London

Cramp, S. and Simmons, K.E.L. 1983. Birds the Western Palearctic. Volume 3. Oxford University press.

Dunn, J.L. (1993), "The Identification of Semipalmated and Common Ringed Plovers in Alternate Plumage", *Birding*, August 1993: 238-243.

Hashimoto, N. (2007) The First Record of the Semipalmated Plover *Charadrius semipalmatus* in Japan. J. Yamashina Inst. Ornithol., 39: 27_30.

Hayman, P., Marchant, J. & Prater, T. (1986), *Shorebirds; an Identification Guide to the Waders of the World*, Croom Helm, Sydney.

http://birdingfrontiers.com/2012/07/23/scary-plover/ Ringed and Semipalmated Plover ID

http://10000birds.com/plovers-theyre-harder-than-you-think.htm Plovers, They're harder than you think.

Marchant, S. & Higgins, P.J. (Eds.) (1993), *Handbook of Australian, New Zealand & Antarctic Birds Vol. 2, Raptors to Lapwings*, Oxford, Melbourne.

Message, S., Taylor, D.(2005), Waders of Europe, Asia and North America , Christopher Helm, London

Mullarney, K. (1991), "Identification of Semipalmated Plover, a new feature", *Birding World* 7: 254-258

Mullarney, K., Svensson, L., Zetterstrom, D. & Grant, P.J. (2001), *Collins Bird Guide*, Harper Collins *Publishers*, London. Nol, E. Williams, S., Wainio, K. & Storm-Suke, A. 2013 Plumage dichromatism, wing-mass relationships and accessing the accuracy of field sexing techniques in breeding plumage Semipalmated Plovers. Wader Study Group Bull. 120.(2): 114-118

http://nzbirdsonline.org.nz/species/semipalmated-plover The digital encyclopedia of New Zealand birds. O'Brien, M., Crossley, R., and Karlson K. 2006. The Shorebird Guide. Houghton Mifflin Company, New York, NY.

Paulson, D. (2005), *Shorebirds of North America: The Photographic Guide*, Christopher Helm, London.

Prater, A.J., Marchant, J.H. & Vuorinen J. (1977), *Guide to the identification and ageing of Holarctic Waders*, British Trust for Ornithology, Tring, Herts.

Russian Journal of Ornithology, Volume 14, Express-issue 298, Pp. 795-799. Breeding of Semipalmated Plovers in Russia.

Smith, N.G. (1969), Polymorphism in Ringed Plovers. Ibis, 111: 177-188.

Snell, RR. (1991),Conflation of the observed and the Hypothesized: Smith's 1961 Research in Home Bay,. Baffin Island. Colonial Waterbirds 14: 196-202

Stresemann, E. 1963. Variations in the number of primaries. Condor 65: 449-459.

Syroechkovskiy, E.(2004) A summary of Spoon-billed Sandpiper (SBS) conservation work in summer 2004.Tattler 41: 6–7.

Takumi, K. 2014 A record of Semipalmated Plover *Charadrius semipalmatus* at Kujukuri Beach, Chiba Prefecture, Jpn J Ornithol 63:71-74

Van Duivendijk, N. 2010. Advanced Bird ID Guide, The Western Palearctic. New Holland.

Wynne-Edwards, V.C. 1952. Zoology of the Baird Expedition (1950). 1. The birds observed in central and southeast Baffin Island. Auk69: 353-392.

Zimmer K.J (2000) Cornell University Press. Birding in the American West: A Handbook.