

OBSERVATIONS ON AUSTRALIAN PIED OYSTERCATCHERS FORAGING IN GRASSLANDS AND ROOSTING ON ROADS IN SOUTH AUSTRALIA

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Australian Pied Oystercatchers *Haematopus longirostris* generally inhabit the coastal dunes, estuaries and beaches of Australia, and such habitats are used for spring / summer nesting, the rearing of their young as well as foraging and roosting by non-breeding flocks often during the wetter winter months (Taylor *et al.* 2014). When they opportunistically inhabit intertidal areas, they forage for bivalves (pipis, cockles and mussels), small gastropods and annelid / polychaete worms (Taylor *et al.* 2014). This habitat dependency contrasts with their more habitat diverse counterpart species of the Northern Hemisphere, the Eurasian Oystercatcher *H. ostralegus* and in New Zealand, the Pied Oystercatcher *H. finschi*, which both breed and forage inland, around the edges of rivers, lakes and on farm-land as well as over-wintering on the edge of estuaries and sheltered bays (Holden & Cleaves 2014; Sagar & Veitch 2014, respectively). This difference is thought to be due to the drier inland Australian habitat which is not conducive to rearing the young of *H. longirostris* (Taylor *et al.* 2014). However, the movement behaviours of the three species show some similarity, as, when wintering as large roosting flocks, they can be forced off coastal sites, at times of storm-enhanced high tides, and consequently, make use of nearby grasslands or sports fields (*H. ostralegus*, Heppleston (1971); *H. finschi*, Sagar & Veitch (2014); *H. longirostris*, Minton (1998, 1999), Fletcher & Newman (2010)), where they forage for earthworms and insects. Also, in SE Tasmania, Higgs (2015) and Newman (2015a & b) observed that if such unfavourable conditions occurred during their spring / summer nesting season, nesting birds and non-breeding roosting flocks are forced to move to grasslands and hillsides to forage, or adjacent roads to roost, resulting in road-kills.

Here, we report on several occurrences of *H. longirostris* foraging in grasslands, watered recreational areas, as well as roosting on roadways around coastal

South Australia. We suggest a link between these occurrences, storm-driven high tidal levels and the locations of their nearest and usual high tidal roosting areas. Our observations are mainly confined to the SE Fleurieu coast (Jones 2016), and the NE bays of Kangaroo Island, although sightings on SW Yorke Peninsula (Port Turton) and western Eyre Peninsula (Port Kenny) are also included (Figures 1a & b, Table 1). Since 2011, trained volunteers have undertaken monthly counts at sites in the first two regions, recording bird numbers, observing their behaviour and collecting environmental (weather, tides, presence of beach wrack) information. Of the ten SE Fleurieu sites visited regularly between June 2011 and March 2018, neither pairs nor flocks of *H. longirostris* were observed foraging in adjacent grasslands or roosting on roadways. Of the 14 sites visited on Kangaroo Island, five were where birds were seen to forage in grasslands or roost on roads, and we recorded six occasions (8.5%) out of a total of 71 visits to these sites, when this occurred. We conclude that these events are relatively uncommon, and the only times when this behaviour was observed, it was accompanied by strong storm conditions, extremely high tides and generally wet weather. Also, the sightings occurred only a short distance (up to 0.8 km) away from the nearest high tidal roosting sites (Cape Rouge, Beatrice Point and Swan Crossing, Kangaroo Island (see Table 1 and Figures 2 a – c)). Our observations concur with those of Baxter (2015), also on Kangaroo Island, who reported that *H. longirostris* foraged in winter coastal pastures on insects, larvae and earthworms, and more rarely, around the edges of inland saline lakes. The other two sightings on the mainland at Port Turton and Port Kenny were from opportunistic reports, so, we cannot comment on how common this behaviour is at these sites. Although, both behaviours also occurred at times of high tides and storm conditions.



Figure 1. Map of Locations where *H. longirostris* were observed feeding in grasslands in South Australia. A: South Australia, B: NE Kangaroo Island.

Table 1: Observations of *Haematopus longirostris* foraging in grasslands, watered recreational areas and roosting on roads in South Australia.

Date	Site	Observations of <i>H. longirostris</i>	Environmental conditions	Nearest known high tidal roosting area and distance.
14 & 22 July, 2015	Christmas Cove, KI (-35.719°S, 137.935°E)	1 pair foraging on earthworms on watered grass, adjacent to boat ramp.	Incoming tide, light sw winds on July 14 and strong nw winds on July 22.	Unknown nearest roosting area.
22 July, 2015	Swan Crossing, south of American River township, KI (Figure 2a) (-35.791°S, 137.757°E)	20 birds foraging in grazed land.	High tide, adjacent samphire beds partly inundated, strong sw winds.	Samphire beds, nw Pelican Lagoon, 100 m.
18 June, 2015	North Cape, KI (-35.578°S, 137.629°E)	12 birds foraging in grazed land	Flood tide, strong n wind.	Cape Rouge, 0.8 km, south.
20 May, 2016	Reeves Point Reserve, KI (Figure 2b) (-35.642°S, 137.640°E)	~ 60 birds foraging in grass.	Flood tide, strong n wind.	Beatrice Point, 100 m.
22 May, 2016	Road adjacent to Bay of Shoals Boat Ramp (Figure 2 d) (-35.603°S, 137.635°E)	20 birds roosting on road.	Flood tide, storm conditions.	Beatrice Point, 400 m. east.
2 October, 2016	Port Turton, sw YP (Figure 2c) (-34.938°S, 137.353°E)	1 pair foraging on watered grass, Caravan Park.	Flood tide, strong n winds.	Samphire beds at Hardwicke Bay, 1 km east.
17 August, 2017	Port Kenny, adjacent to Flinders Highway, w EP (-33.160°S, 134.684°E)	8 birds foraging in damp grassed area, adjacent to highway.	Flood tide, wet, w winds.	Unknown nearest roosting area. Nearest coast is 100 m. west on Venus Bay.

During winter months, and especially during very cold weather, energy demand for Eurasian Oystercatchers *H. ostralegus* increases (Stillman *et al.* 2001), and higher bird mortality can be expected if the birds do not have access to food at this time. Similarly, when they have been forced to abandon their high tidal roosting sites, the observation of *H. longirostris* foraging in nearby grasslands, suggests that these birds may also be in brief periods of energy debt. Other species of Oystercatchers more often use grasslands during autumn and winter. In NE Scotland, *H. ostralegus* are regularly forced to overwinter on farm lands, where more adequate food is available when nearby food sources are less accessible near the coastal roosting sites (Heppleston 1971). Similarly, in New Zealand, both species of Oystercatcher

(*H. finschi* and *H. Unicolor*) are known to regularly inhabit South Island coastal grasslands during autumn and winter at all stages of tides (Crossland 1993). These birds shift considerable foraging effort from the intertidal areas to these grasslands as grassland food (earthworms and insects) is more accessible to their probing bills, than deeper burrowing shellfish of intertidal areas (A.C. Crossland, *Pers. Comm.*).

Finally, at times of storm-driven extremely high tides near the Bay of Shoals Boat Ramp on Kangaroo Island, we observed small flocks roosting on the road adjacent to their usual high tidal roosting site at Beatrice Point (Figure 2d). These observations are similar to those recorded in SE Tasmania, where road-kills have been reported (Newman 2015a & b). We observed *H.*



Figures 2 A - D: Australian Pied Oystercatchers foraging in grassed areas at A) Swan Crossing, KI, B) Reeves Point Reserve, KI, C) Port Turton, SW Yorke Peninsula, and D) roosting on roadway adjacent to Bay of Shoals Boat Ramp, KI.

longirostris foraging amongst grass growing adjacent to the roads at the Bay of Shoals Boat Ramp, Reeves Point Reserve, Christmas Cove on Kangaroo Island and at Port Kenny on Eyre Peninsula. With predicted increasing numbers of visitors to Kangaroo Island (Greenhill Research & Planning 2017), the need to manage these temporary roosting and foraging sites should be considered.

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REFERENCES

- Baxter, C.** 2015. Pied Oystercatcher (*Haematopus longirostris*). In: Birds of Kangaroo Island. A Photographic Field Guide. ATF Press. Adelaide. p. 234-235.
- Crossland, A.C.** 1993. Birdlife of the Avon-Heathcote Estuaries and Rivers, and their margins. *Canterbury Conservancy Technical Report Series No. 6. Dept. of Conservation, Christchurch.*
- Heppleston, P.B.** 1971. Feeding ecology of oystercatchers in winter in northern Scotland. *Journal of Animal Ecology* 40:651-672.
- Higgs, T.** 2015. A rare find on the Swansea Oval. *Yellow Throat, Birdlife Tasmania Newsletter* 80:5.
- Holden, P. & T. Cleeves** 2014. Oystercatcher *Haematopus ostralegus*. In: RSPB Handbook of British Birds, 4th Edition. Bloomsbury Publ. London. p116-117.
- Jones, G.K.** 2016. Changes in distribution and abundance of Australian Pied and Sooty Oystercatchers on highly disturbed beaches of SE Fleurieu coast, South Australia. *Stilt* 68:31-39.
- Minton, C.** 1998. Pied Oystercatchers feeding on golf course. *Stilt* 33:37.
- Minton, C.** 1999. More on Pied Oystercatcher feeding on golf course. *Stilt* 34:30.
- Newman, M.** 2015a. Why incubating Oystercatchers dice with death at Lauderdale. *Yellow Throat, Birdlife Tasmania Newsletter* 84:7-8.
- Newman, M.** 2015b. High Tide Roosts and Nest Sites: South Arm Shorebirds run out of options. *Tasmanian Bird Report* 37:8-9.
- Sagar, P. & D. Veitch** 2014. Conservation Assessment of the South Island Oystercatcher *Haematopus finschi*. *International Wader Studies* 20:155-160.
- Stillman, R.A., J.D. Goss-Custard, A.D. West, S.E.A. Le V. Durell, S. McGorty, L.W.G. Caldow, K.J. Norris, I.G. Johnstone, B.J. Ens, J. Van der Meer & P. Triplet** 2001. Predicting shorebird mortality and population size under different regimes of shellfishery management. *Journal of Applied Ecology* 38(4):857-868.
- Taylor, I., M. Newman, P. Park, B. Hansen, C.D.T. Minton, A. Harrison & J. Jessop** 2014. Conservation Assessment of Australian Pied Oystercatcher (*Haematopus longirostris*). *International Wader Studies* 20:116-128.
- Greenhill Research and Planning** 2017. TOMM (Tourism Optimisation Management Model) KI Committee Residents Survey 2016/17. Final Report, 77 pp. Page 6.