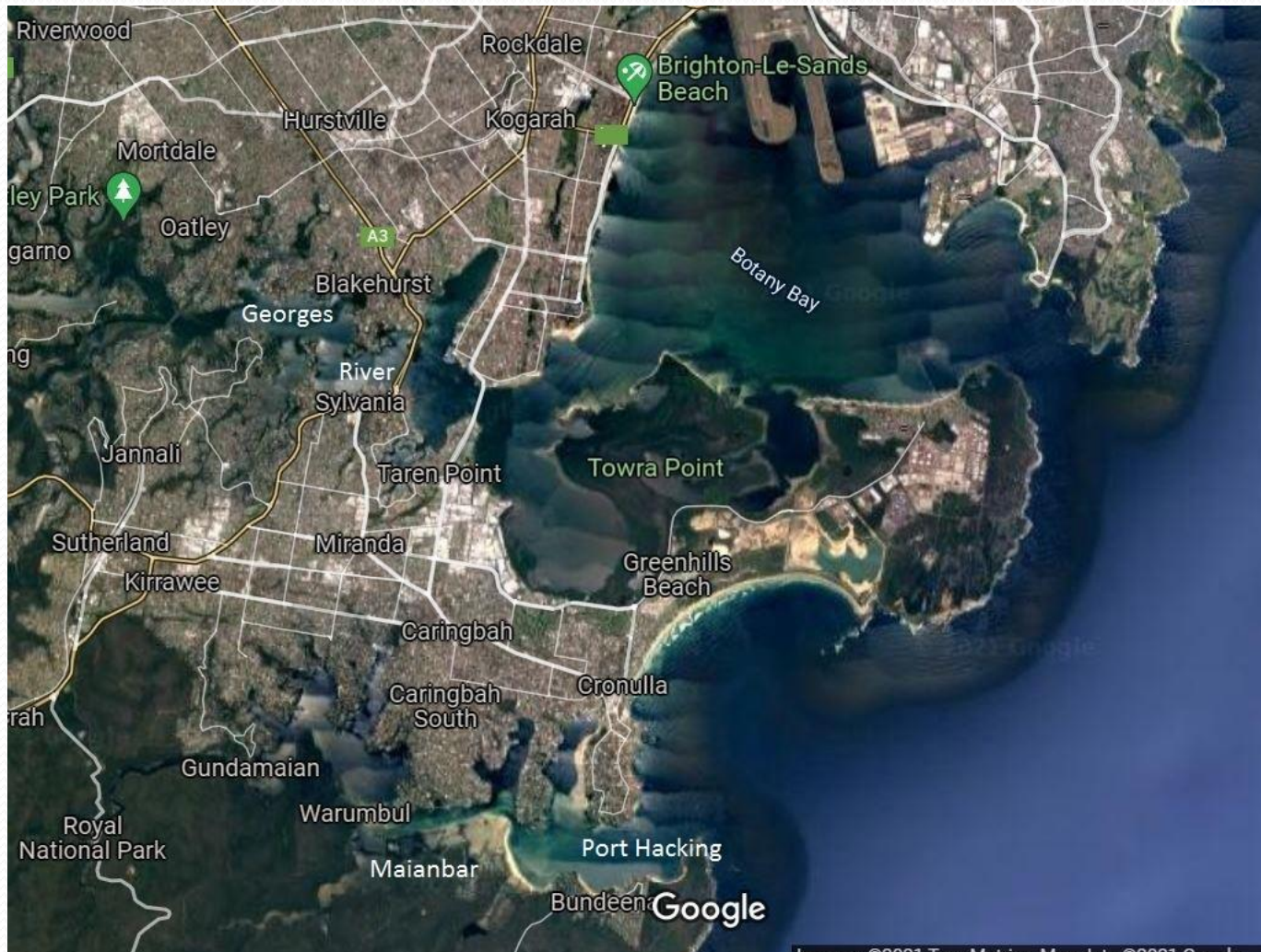


Shorebirds of Botany Bay and Port Hacking estuaries



Shorebird feeding habitat – intertidal zone between high and low water mark – exposed at low tide

Sandy or muddy intertidal flat



Intertidal rock platform



Shorebird lifestyles

Migratory



Eastern Curlew, Bar-tailed Godwit, Grey-tailed Tattler, Towra Point.

Resident



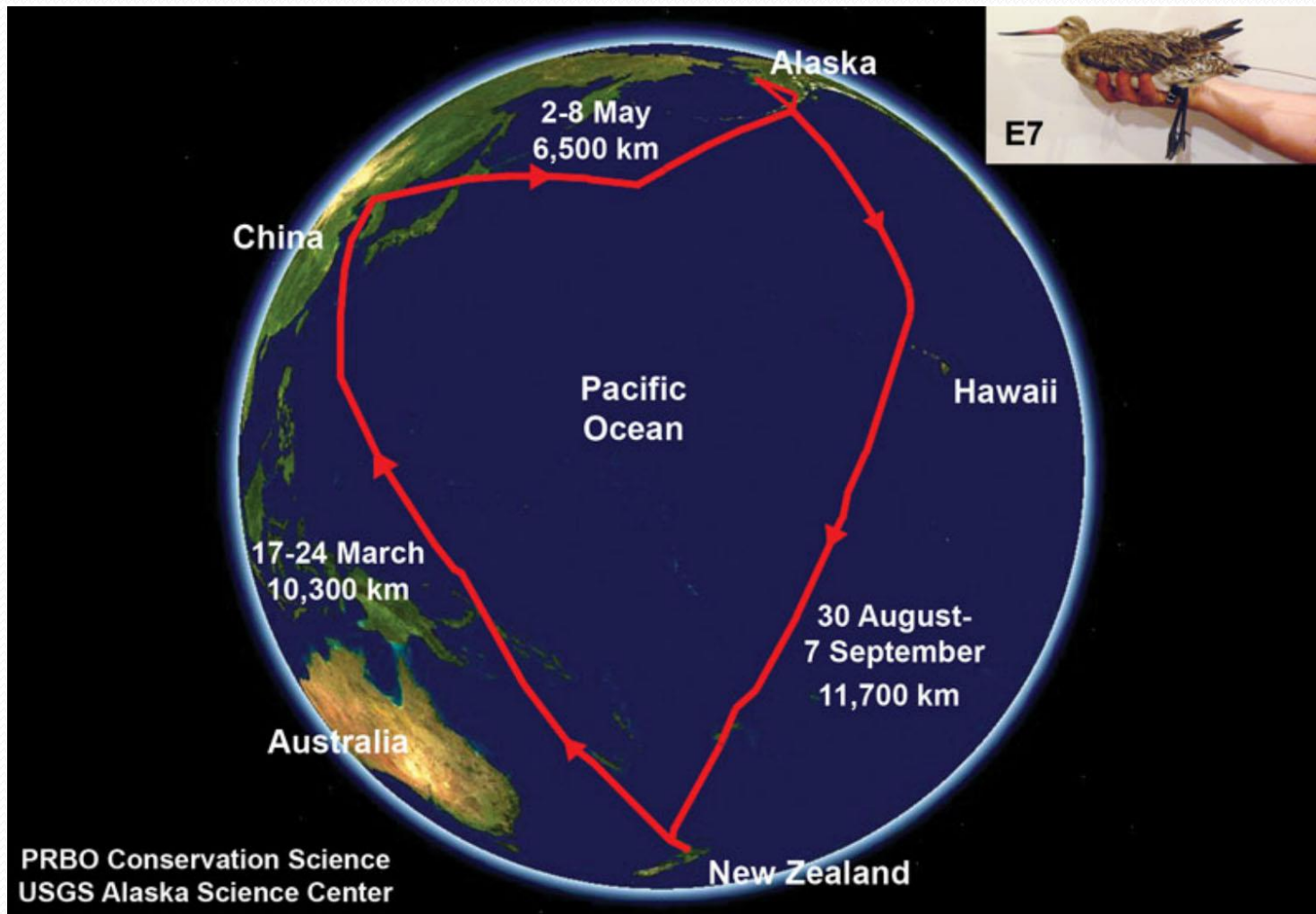
Pied Oystercatcher, Towra Spit Island, Towra Point.

East Asian Australasian Flyway- a pathway in the sky across the globe



Bar-tailed Godwit, Towra Spit Island, Towra Point, global migrants.

The journey of E7 – the Bar-tailed Godwit that set a new world record for non-stop flight



Botany Bay and Port Hacking – why are they important to shorebirds – migratory species



Little Tern, breeds in Australia



Eastern Curlew,
Towra Point, breeding grounds
Siberia.



Double-banded Plover,
breeds in New Zealand

- 18 species of migratory shorebirds are regularly found in Botany Bay and Port Hacking areas due to the diversity of habitat and rich invertebrate foods.
- Migratory species spend more than 6 months a year here preparing for their annual migration to their breeding grounds in the tundras, moorlands and coasts of the high latitudes of Siberia and Alaskan Arctic in the northern hemisphere.
- Their time in Australia is a critical part of the life cycle, recovering body condition, moulting feathers and building up fat reserves for migration.
- Botany Bay and Port Hacking together support nationally significant populations of Critically Endangered Eastern Curlew, Endangered Pied Oystercatcher and Double-banded Plover.
- The Endangered Little Tern, a migrant from Japan, regularly breeds on Towra Spit Island at Towra Point.
- The small Double-banded Plover breeds in New Zealand and migrates to Australia in winter.

Shorebird species of Botany Bay and Port Hacking

Migratory species

- Eastern Curlew (100-160) CE
- Bar-tailed Godwit (170-200) V
- Whimbrel (50-70)
- Grey-tailed Tattler (40-70)
- Red-necked Stint (100-180)
- Sharp-tailed Sandpiper (2-25)
- Pacific Golden Plover (20-60)
- Ruddy Turnstone (7-25)
- Terek Sandpiper (1-2) V
- Red Knot (2-20) E
- Great Knot (1) CE
- Common Greenshank (2-4)
- Common Sandpiper (1)
- Sanderling (1-2) V
- Double-banded Plover (15-26)
- Little Tern (30-100) E
- Common Tern (3-70)
- White-fronted Tern (1-3)

Resident species

- Pied Oystercatcher (50-110) E
- Sooty Oystercatcher (10-16) V
- Red-capped Plover (2-10)
- Black-fronted Dotterel (2-4)
- Masked Lapwing (2-10)
- Black-winged Stilt (2-20)
- Crested Tern (5-500)
- Caspian Tern (5-18)
- Silver Gull (50-350)
- Kelp Gull (1-8)

All migratory species are protected under the Commonwealth Environment Protection and Biodiversity Conservation Act (EPBC Act). Species shown in red are listed as threatened under the EPBC Act and / or NSW Biodiversity Conservation Act . CE-Critically Endangered, E-Endangered, V-Vulnerable

Shorebirds of Botany Bay and Port Hacking

- migratory species – summer migrants



Eastern Curlew (Siberia)



Bar-tailed Godwit, male left, female right (Alaska).



Little Tern (eastern Asia)



Whimbrel (Siberia)



Grey-tailed Tattler, Taren Point (Siberian mountains).



Red Knot, Bar-tailed Godwit, (Alaska).

Shorebirds of Botany Bay and Port Hacking

-migratory species – Boat Harbour rock platform



Ruddy Turnstone



Ruddy Turnstone, Pacific Golden Plover, Red-necked Stint and Sanderling - summer migrants from the Siberian Arctic.



Double-banded Plover - winter migrant from New Zealand.

Shorebirds of Botany Bay and Port Hacking – resident species



Pied Oystercatcher



Sooty Oystercatcher



Crested Tern



Black-winged Stilt



Red-capped Plover



Sooty Oystercatcher, Crested Tern, Caspian Tern.

Shorebirds of Botany Bay and Port Hacking – feeding strategies

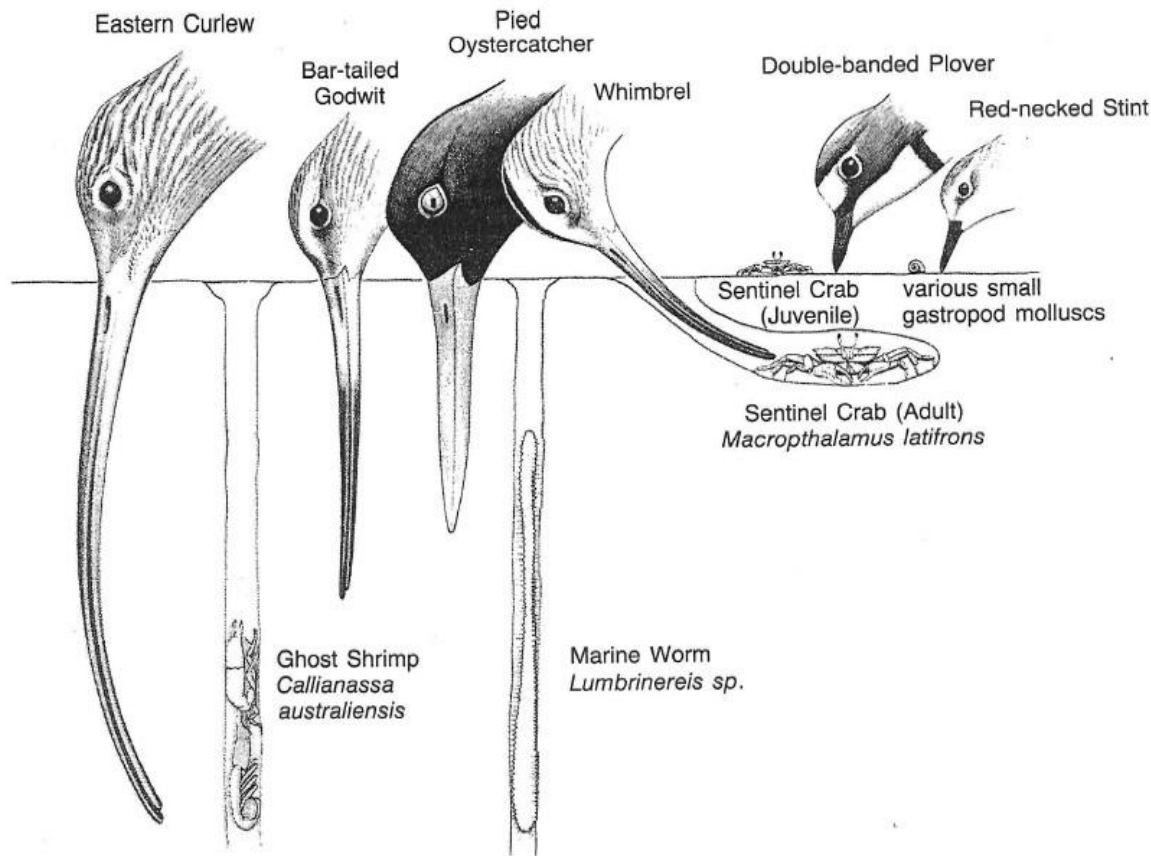
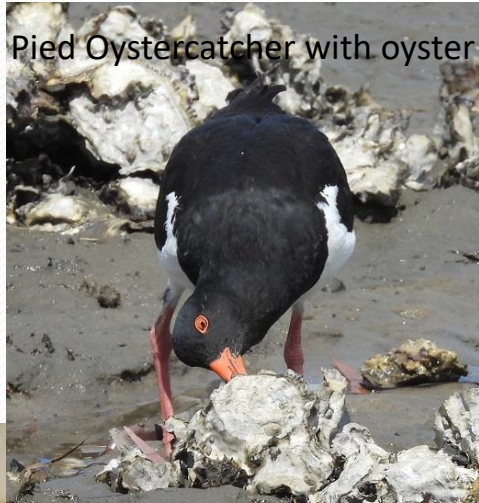


FIG. 3.10. The bill lengths of some intertidal shorebirds in relation to the typical depths of their main prey.

From Dann, P. (1987) The feeding behaviour and ecology of shorebirds.
Ch 3 in "Shorebirds in Australia", B. A. Lane (ed).

Shorebirds of Botany Bay and Port Hacking

-feeding strategies



Pied Oystercatcher with oyster



Grey-tailed tattler with crab



Eastern Curlew with crab



Bar-tailed Godwit with Soldier Crab



Godwit with marine worm



Small mangrove crab



Soldier crabs *Mictyris longicarpus*



Bar-tailed Godwit with Ghost Nipper



Ghost Nipper *Trypaea australiensis*

Shorebirds of Botany Bay and Port Hacking

-critical high tide roosting habitat- resting sites



Shorebirds of Botany Bay and Port Hacking

- critical nesting sites-Towra Spit Island, Towra Point



Little Tern with young fledglings, Towra Spit Island, Towra Point

Nesting Little Tern,
Towra Spit island



Little Tern egg and chicks



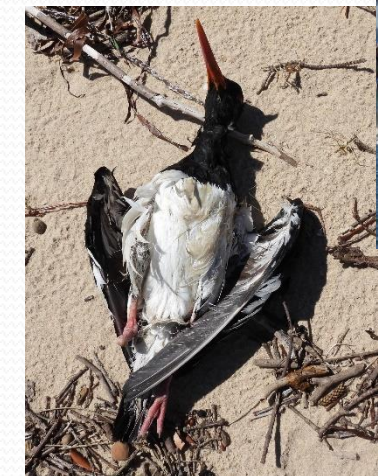
Pied Oystercatcher chick



Nesting Pied Oystercatcher and egg, Towra Spit island

Shorebirds of Botany Bay and Port Hacking - threats

- Loss of habitat
 - Roosting sites
 - Feeding areas
 - Migration stop-overs, Yellow Sea, China/Korea
- Predation- roosting/feeding sites
 - Feral Fox, Feral Cat, domestic cats and dogs
- Disturbance at roosting and feeding sites
 - Dogs, people, boats, drones
- Disturbance and destruction of nesting sites
- Plastic pollution –fishing line
- Climate change



Shorebirds of Botany Bay and Port Hacking

- Conservation – making space for shorebirds

