

Birds Tasmania

Presentation to RPDC Panel re Walker proposal, June 2009



Birds Tasmania

- Introduction:

- community based, entirely voluntary
- Bird Observers' Association of Tasmania formed in 1971, joined Birds Australia in 1998 to become a regional group of Birds Australia, Australia's oldest conservation organisation (founded 1901)
- independent source of information, data, advice and expertise to Federal and State Government, Councils, NRMs and community groups:
 - House of Reps Enquiry into Climate Change and Coastal Communities
 - Bruny Bioregion MPA enquiry
 - Ramsar ECD Pittwater Orielton DPIW
 - Multi-species Recovery Plan, King Island
 - numerous community "Care" groups

Birds Tasmania

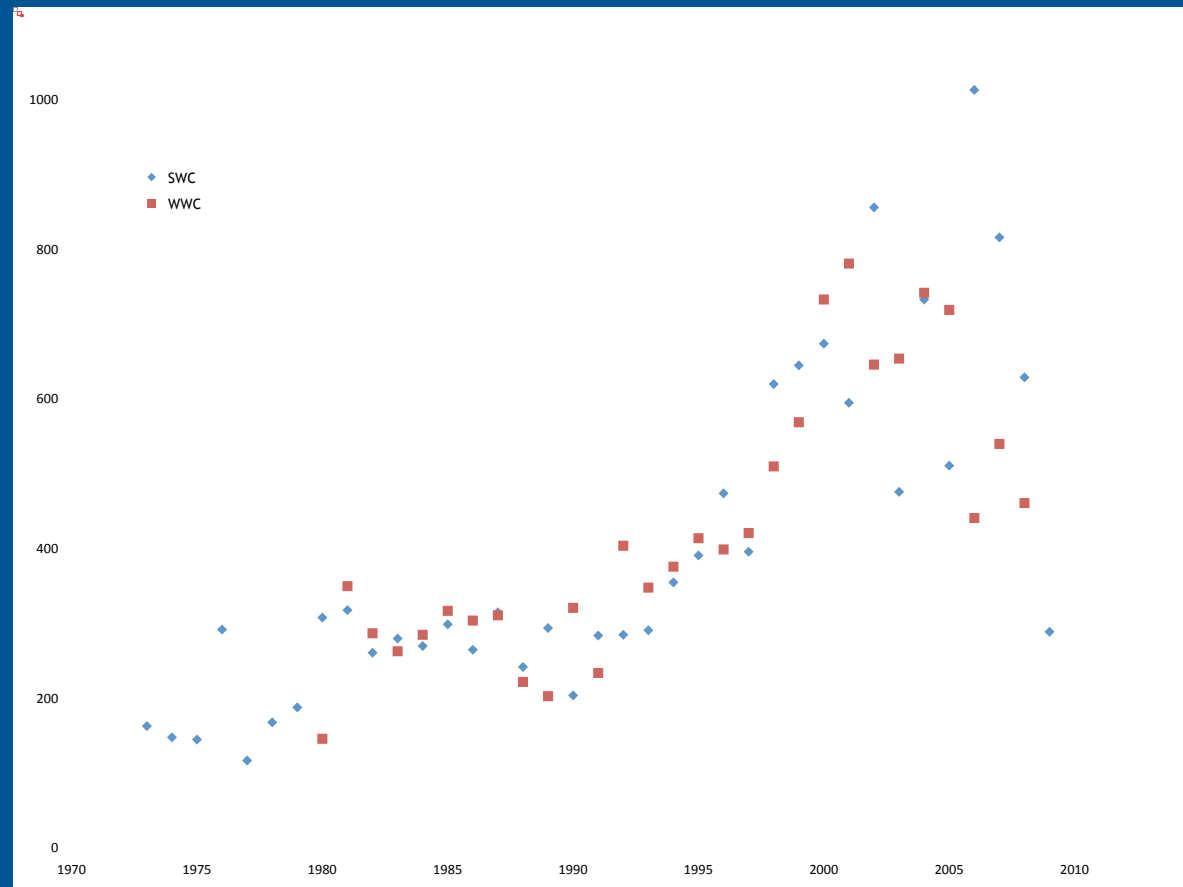
- high level of expertise and experience in shorebirds, reflecting long-term involvement in conservation efforts and decadal-scale surveys of shorebirds, some members involved in counts for almost 40 years
- counts initiated in southeast Tasmania by David Thomas in 1965, continued to 1968, then continuous since 1973 (summer) and continuous since 1980 (winter)
- similar counts in northeast since 1970s and northwest since 1990s
- counts in southeast Tasmania are the longest shorebird data series in Australia
- simultaneous counts in southeast to survey network of inter-connected wetlands, coastal lagoons and inter-tidal areas contribute to national and international monitoring efforts

Birds Tasmania

- Involvement regarding Walker proposal for Ralphs Bay:
 - Representation provided preliminary catalogue of issues and concerns, identified values of Ralphs Bay, provided extensive supporting information and literature that had been overlooked by proponent.
 - Proofs of Evidence supplemented this representation with additional scientific material, detailed data and analyses.
 - Additional material prepared to respond to Proofs supplied by Delaney and Meredith on behalf of Walker.

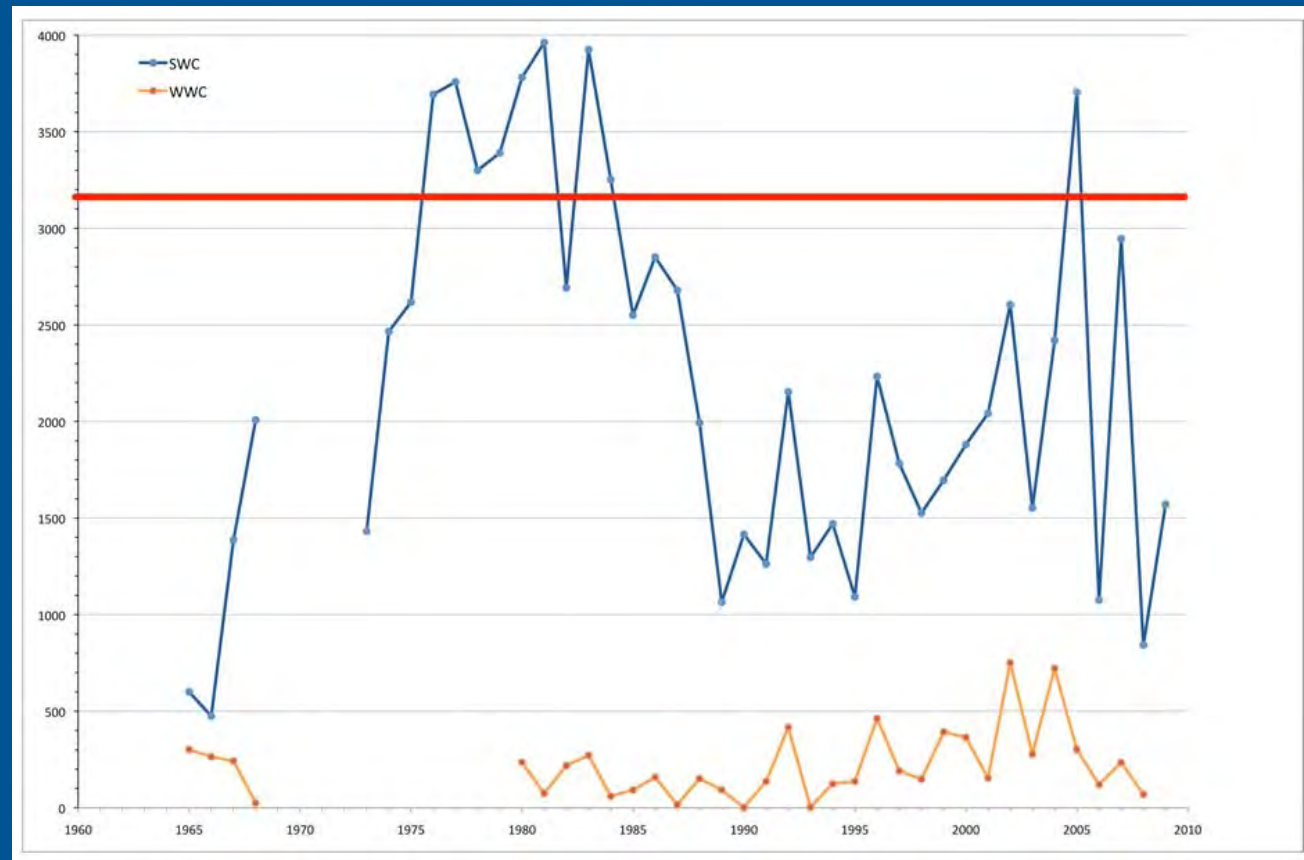
Birds Tasmania

- Ralphs Bay is known to be internationally significant for resident and migratory shorebirds
- Pied Oystercatcher counts exceeded 1000 birds in simultaneous counts
 - Ralphs Bay and Lauderdale in particular, is becoming a refuge for displaced Pied Oystercatchers
 - UNIQUE combination of two roost sites adjacent to high-value feeding site at Lauderdale



Birds Tasmania

- Ralphs Bay is internationally significant for resident and migratory shorebirds
 - Red-necked Stints in DEPA approach/exceed 1% global population in simultaneous counts (criterion is 3150)
 - birds can live for ≥ 17 years
 - annual migration 25,000 km and over their lifetime, fly farther than the Earth to the Moon



Birds Tasmania

- Tasmania is the southern-most destination on the East Asian-Australasian Flyway
- Millions of shorebirds migrate annually between breeding grounds in Siberia and Australia, including Ralphs Bay
- Migrants range in size from 1kg eastern curlew to 15g red-necked stint
- extensive efforts have been undertaken to band migrants to establish their migration routes and demographics (eg life expectancy)
- some banding in Tasmania, both resident and migrants



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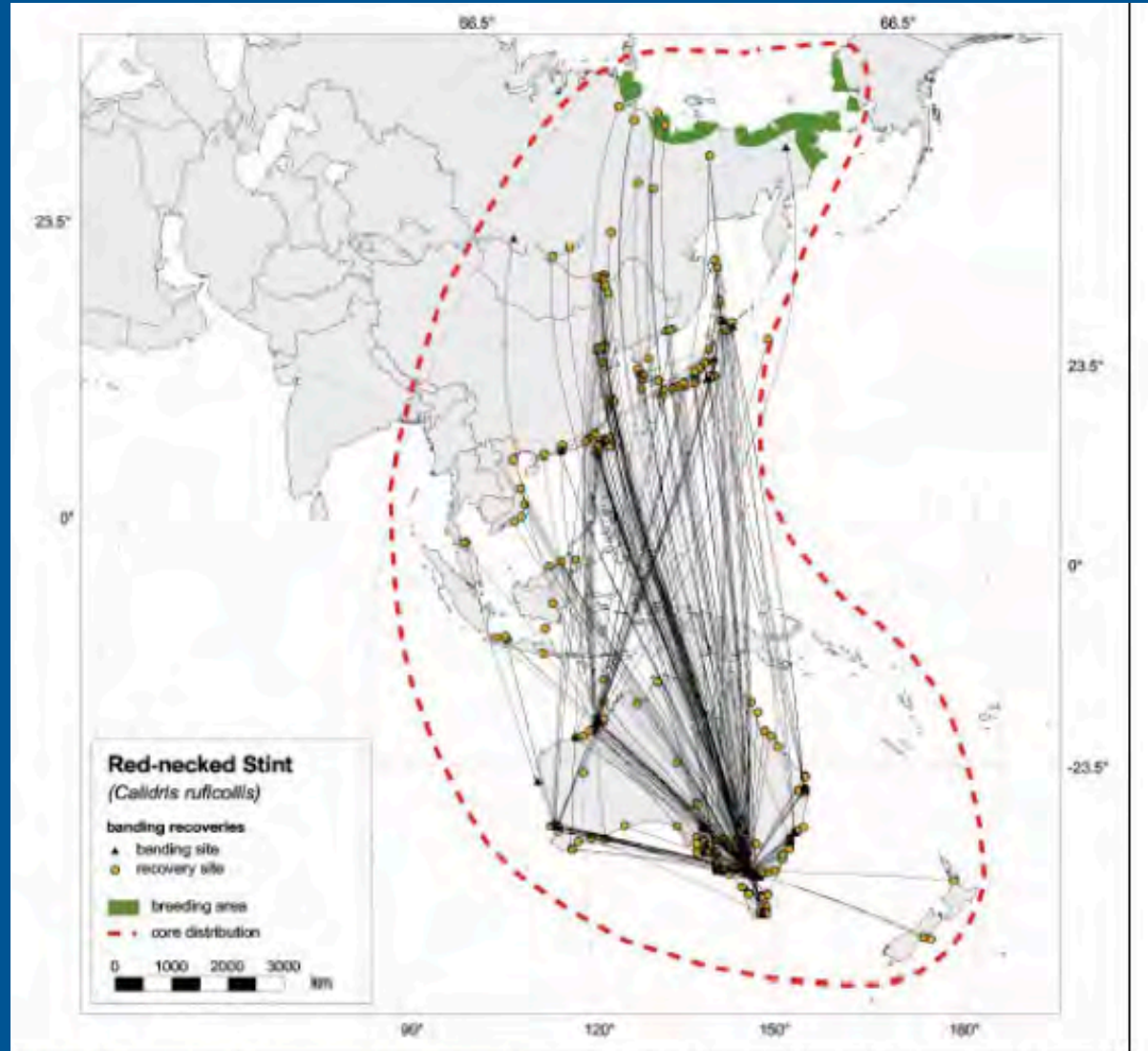
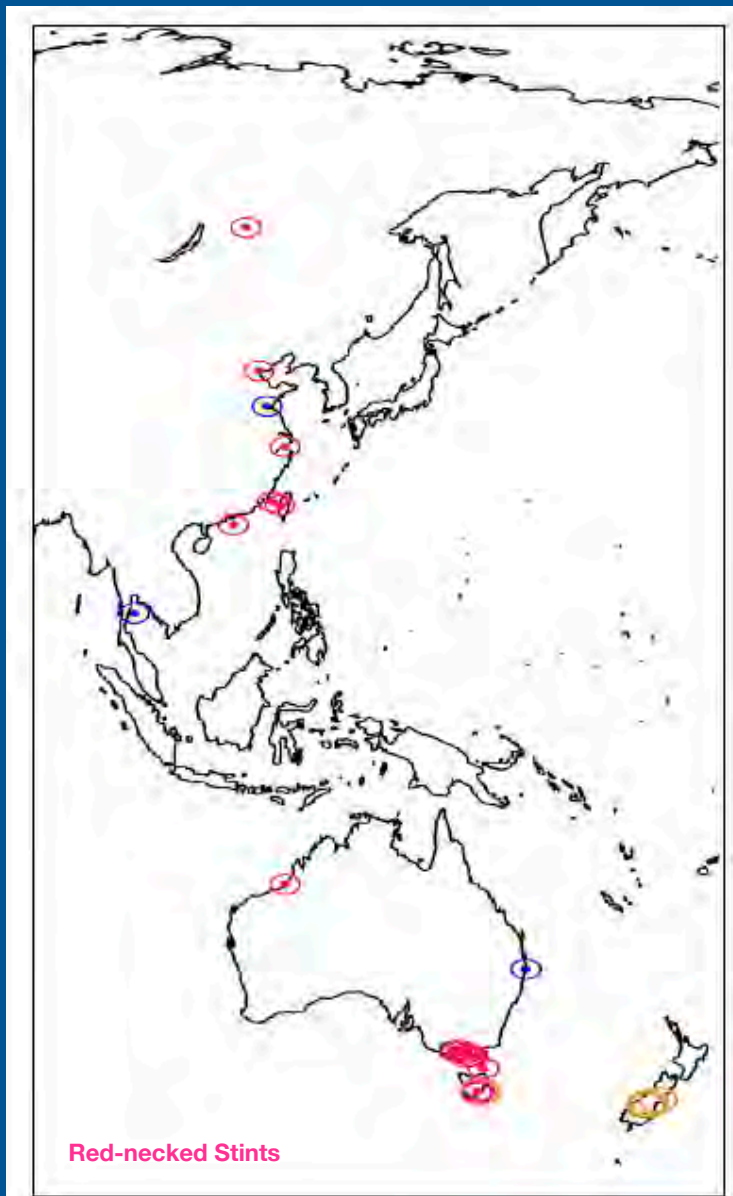


Fig 2. Map showing the movements and banding/recovery sites for red-necked stints in the East Asian-Australasian Flyway. © 2004 Birds Australia.
<http://www.awsg.org.au/images/stint-map.html> accessed 25May09.

Birds Tasmania

- Network of inter-connected wetlands, coastal lagoons and inter-tidal areas in Derwent-Pitt Water Orielton Lagoon and Marion Bay
- regular and frequent movements of resident and migratory species among sites, depending on age, tide, time of day and night, time of year and disturbance
- 4% banded red-necked stints from Ralphs Bay resighted in Pitt Water Ramsar wetlands, low percentage reflects search effort
- cannot treat each site as a separate entity, must consider network as a **SYSTEM**



Birds Tasmania - Issues and Concerns

- Extensive concerns re proposal
 - revocation of declared Conservation Area established to protect shorebird feeding habitat, recognised by State and Federal Governments, known to be major feeding site for resident and migratory shorebirds
 - revocation of Crown Land for corporate benefit and profit
 - destruction of feeding and roosting habitats with invalid offset strategy
 - data collection - analyses/interpretations, inappropriate use of raw data
 - flaws in models regarding the most-impacted species - pied oystercatchers, and their future in southeast Tasmania

Birds Tasmania - Issues and Concerns

- Invalid offset strategy
 - invalid because off-site offset strategy proposed will not provide any long-term protection for shorebird habitat
 - the off-site offset area can itself be revoked in the same way that the Ralphs Bay Conservation Area was revoked for Walker, eliminating the offset used to mitigate the destruction of Lauderdale feeding and roosting habitats
 - most likely land classification designation would be Conservation Area (same as the classification for the existing inter-tidal area at Lauderdale), which is lowest level in Tasmanian scale
 - but even higher designations such as Reserves can be revoked
 - the revocation and proposed destruction of the internationally significant Ralphs Bay Conservation Area by the proponent invalidates the proponent's off-site offset strategy

Birds Tasmania - Issues and Concerns

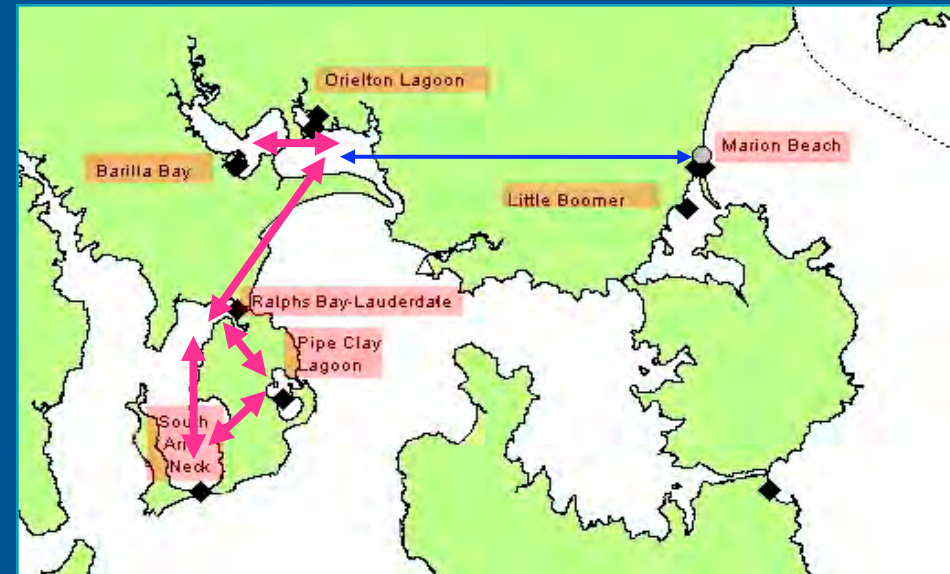
- Invalid offset strategy
 - proposal destroys important feeding habitat for shorebirds
 - no offset possible for loss of feeding habitat - feeding habitat can not “created” anywhere, so there is a NET LOSS of critical habitat
 - off-site offset has no likelihood of permanence (and has yet to be identified), no area of equal importance to shorebirds and oystercatchers in particular, is “available” for protection
 - the offset/mitigation strategy is a catastrophic failure that will see a permanent loss of pied oystercatchers in the DEPA
 - this loss is acknowledged by proponent
- NSW strategy regarding impacts is to (1) avoid, (2) mitigate if not possible/feasible to avoid, then (3) off-site offset

Birds Tasmania - Issues and Concerns

- NSW strategy regarding impacts is to (1) avoid, (2) mitigate if not possible/feasible to avoid, then (3) off-site offset
 - off-site offset shown to be invalid
 - developer has acknowledged that they can not mitigate the impact
 - only choice remaining is to avoid the impacts - no destruction of internationally and nationally important inter-tidal feeding habitat

Birds Tasmania - Issues and Concerns

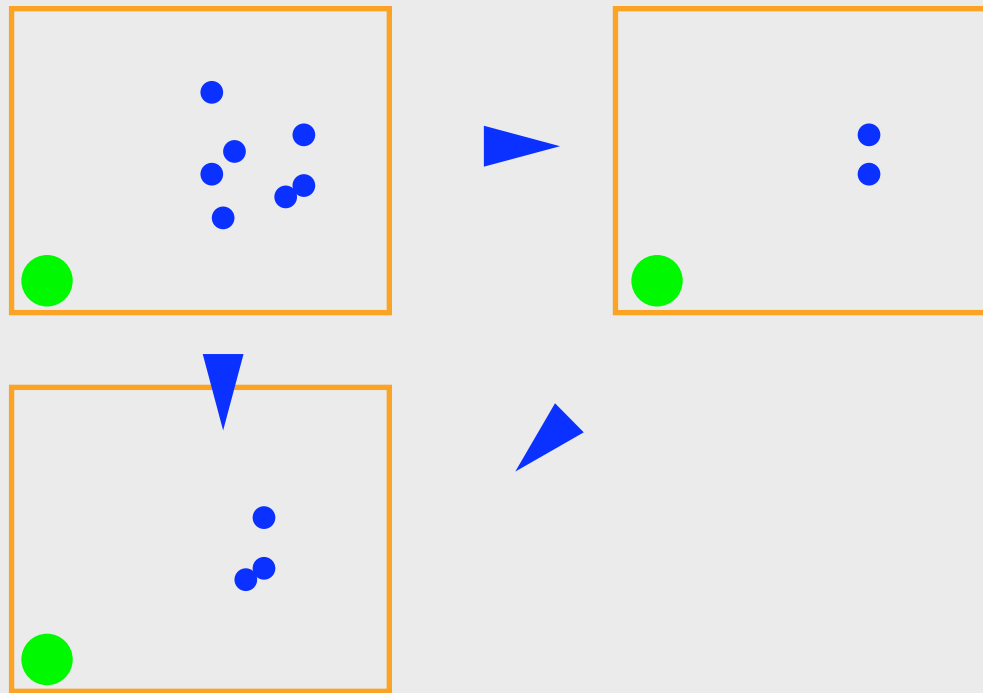
- Flux - analyses for residents and migrants
 - during summer months, thousands of migratory shorebirds move among DEPA wetlands and inter-tidal areas
 - movements follow tides to feed, but also influenced by weather and disturbance
 - resident species **CONFINED** to breeding territories, they have **NO** choice, they have to remain on site to protect territory, nest, eggs and chicks; may move 100-200m depending on size of territory
 - **CAN NOT** use same analyses for resident and migratory species



- flux estimates used same methods for Pied Oystercatchers and Red-necked Stints (App S4, p71)

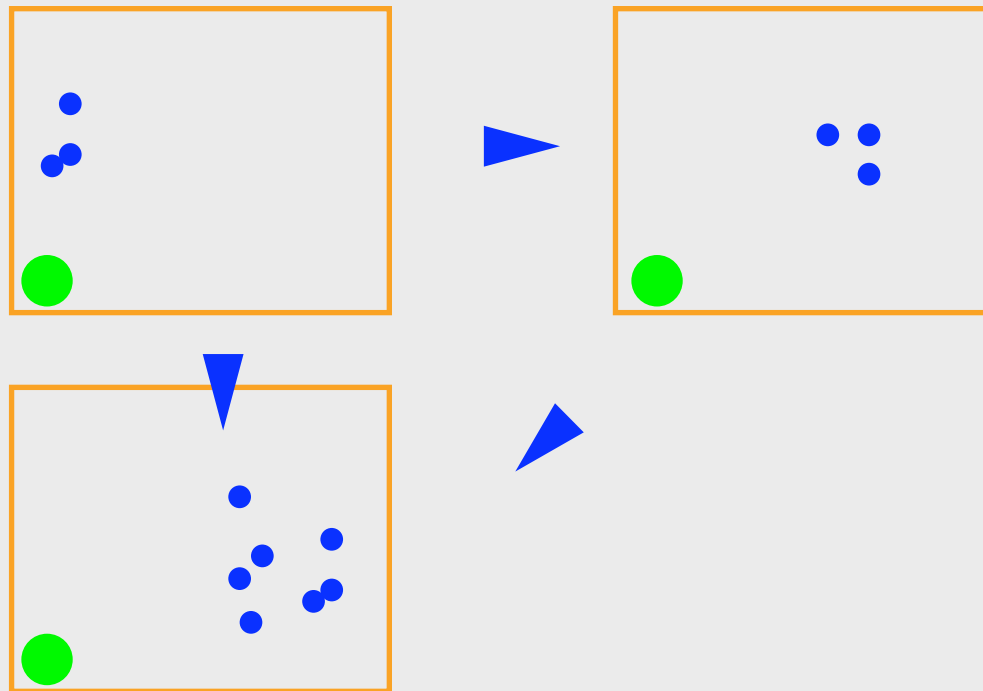
Birds Tasmania

- Flux - asynchronous counts
 - proponent argues that “correlations” with Birds Tas data indicates bird numbers “accurately determined”
 - correlations not provided, question if they are statistically significant



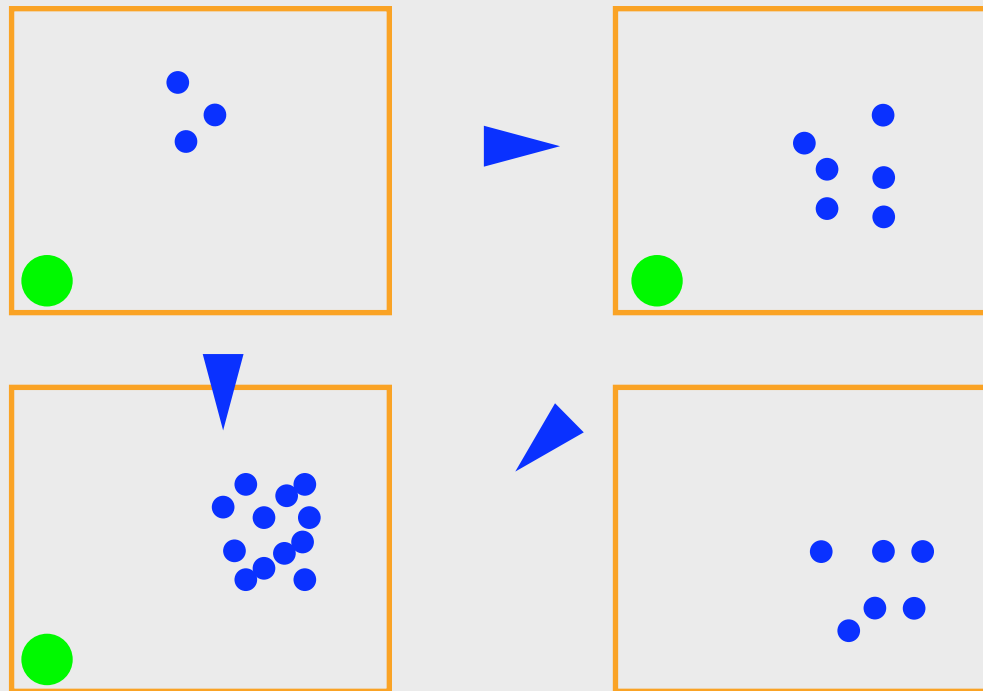
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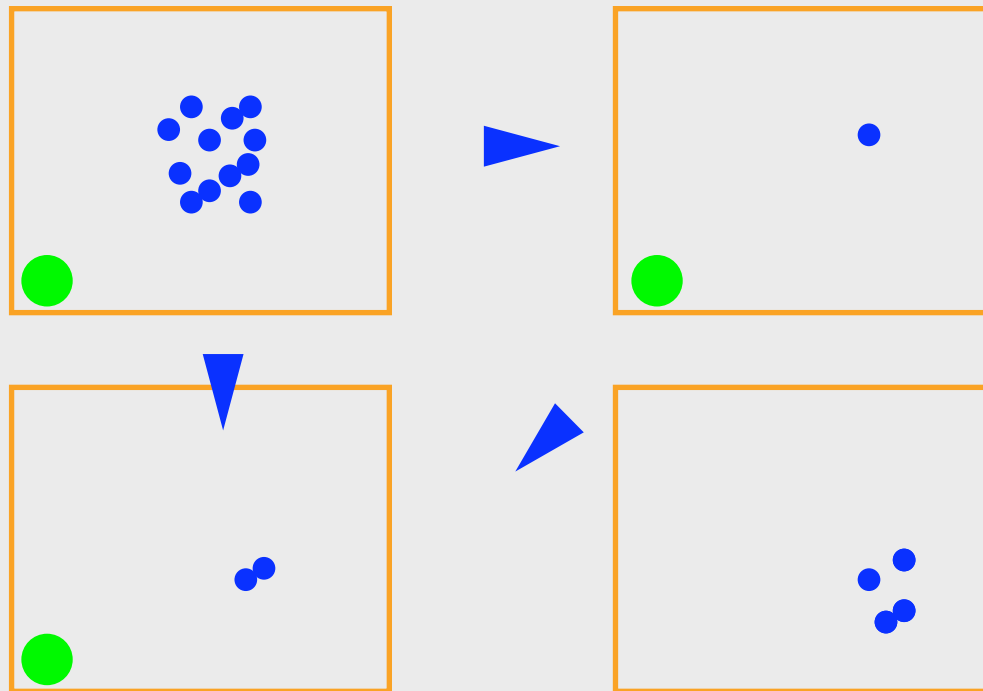
Birds Tasmania

- Flux - asynchronous counts
- problems when not all sites counted simultaneously



Birds Tasmania

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Birds Tasmania - Issues and Concerns

- Behaviour - roosting
 - ambiguous behaviour categories, incorrect use of “roosting”
 - roosting is a behaviour that includes “the act of going to or taking up a roost, ie travelling, gathering and establishment of site” Campbell and Lack 1985 *Dictionary of Birds*
 - by describing sleeping birds (digesting their prey) as “roosting” on the intertidal mud flats, the importance of the Lauderdale Spit (to be destroyed) as a roost site is diminished
 - eg: only 10% of “roosting” birds use the Spit or East Marsh Lagoon



Birds Tasmania - Issues and Concerns

- Behaviour - roosting
 - roost sites as per the formal definition of the term - 100% of birds roosting at high-tide roost sites



Birds Tasmania - Issues and Concerns

- Survey bias
 - unequal sampling effort to count shorebirds, not all sites visited in equal numbers (eg Table 3 in Appendix 4 of Appendix S4, page 6): Barilla Bay 126 visits, Lauderdale 171 visits (reflecting effort focus on Lauderdale)
 - survey data are presented as number of birds x number of visits (eg Table 3 in Appendix 4, page 29) - 1097 visits to Lauderdale resulted in “77304” pied oystercatcher observations
 - presentation skews data to exaggerate abundant species at most visited sites (eg pied oystercatchers at Lauderdale) and reduces contribution of less abundant species (eg Red-necked Stints)
 - not a problem for Ralphs Bay as pied oystercatchers are not listed under EPBC Act, so not a Matter of National Environmental Significance
 - red-necked stints are EPBC listed, but their contribution in Ralphs Bay has been reduced to below threshold of “significant impact”

Birds Tasmania - Issues and Concerns

- Survey bias
 - unequal sampling effort to count shorebirds (as described)
 - DIIS surveys excluded areas known to be used in episodic manner - eg Clear Lagoon is presently holding water, and will be used by shorebirds, yet was dry at time of DIIS surveys and excluded from counts
 - short-term DIIS surveys are 'snapshots' that are inadequate to describe or define habitat use and requirements by shorebirds over their lifetimes (30+ years for pied oystercatchers, 15+ years for red-necked stints)

Birds Tasmania - Issues and Concerns

- Survey bias
 - disparity between “DEPA” survey areas described in DIIS and Birds Tasmania DEPA surveys
 - DIIS surveys at a subset of sites counted for 40 years
 - confusion when comparing these data sets



Red DIIS “DEPA” - a subset of Red+Yellow Birds Tasmania DEPA

Birds Tasmania - Issues and Concerns

- Modelling

- *“Models, of course, are never true, but fortunately it is only necessary that they be useful. For this it is usually needful only that they not be grossly wrong.”* [G Box, Bull J Amer Stat Assoc, 1978]
- models are totally reliant on assumptions and data used to develop them
- key question to ask of any model - *“does it make sense?”* - do you have confidence in the results?
- models produced for the DIIS are grossly wrong, and presentations by Dr Edmunds and Dr Newman will demonstrate that they do **not** make sense and are unreliable
- the Panel should have no confidence in the model’s predictions regarding pied oystercatcher survival in DEPA

Birds Tasmania - Issues and Concerns

- *“The consequence of the observed declines in wader numbers at both a global and national level is that there is likely to be fewer migratory birds relying upon resources available within the DEPA complex. This will reduce competition for available resources and reduces the likely significance of the loss of resources that would occur if the Lauderdale Quay development proceeds.”*
Delaney Proof Of Evidence p37.
- this rationale assumes that efforts in DEPA, elsewhere in Australia and along the East Asian-Australasian Flyway to conserve shorebirds and their habitats will have no effect on shorebird numbers, and that shorebird numbers will decline into the future, so developments that destroy shorebird habitat now will have less of an impact in the future
- failure to accommodate Sea Level Rise as is occurring elsewhere in the world - look ahead to a concrete coast...