

From: [Thomas, Sue](#)
To: [Stenvall, Charlie](#); [BrownScott, Jennifer](#); [Ferrier, Jackie](#); [Flanders-Wanner, Bridgette](#)
Subject: Re: Oysterculture / Shorebird Interaction Study
Date: Monday, May 18, 2020 3:19:38 PM

Thank you Charlie! Seems that Kelly et al (1996) is still our best source of information on Dunlin and Western Sandpiper, two of the species of concern on DNWR.

Plus, their study focuses on spring migrants which have been shown to disregard some disturbance for increased foraging opportunities since they typically only spend 3-5 days at a stopover site and move on. Its like comparing a marathon runner at a pit stop with the extended family sitting down for Thanksgiving dinner (i.e. the overwintering period).

Get it? Sorry, I may have spent too much time working at home...

Sue

Sue Thomas
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From: Stenvall, Charlie <charlie_stenvall@fws.gov>
Sent: Friday, May 15, 2020 12:31 PM
To: BrownScott, Jennifer <jennifer_brownScott@fws.gov>; Thomas, Sue <sue_thomas@fws.gov>; Ferrier, Jackie <jackie_ferrier@fws.gov>; Flanders-Wanner, Bridgette <bridgette_flanders-wanner@fws.gov>
Subject: Re: Oysterculture / Shorebird Interaction Study

Jennifer / Sue,

Interesting article and if you were to read the abstract or conclusion you'd think that we have no concerns for Dungeness and the oyster operation proposed there. However reading the paper in full, it's quite clear that horseshoe crab egg food source is a very different foraging situation than what we have in our estuaries. Secondly they discuss that when racks are placed outside of critical shorebird areas or with buffers the impact seems to be minor. The Dungeness proposal is smack dab in the middle of our area of high resource importance to shorebirds. They admit that they were unable to tell if overall caloric intake was reduced or foraging any less efficient a key component to shorebird survival. I have no idea if the species of shorebird that they monitored on the east coast are analogs for our west coast species. Overall its a positive article on oyster production and shorebirds use but again the situation at Dungeness is not Delaware Bay. Of course, Brant and other waterfowl do not react the same

way as shorebirds and disturbance changes their behavior greatly.

Thanks Bridgette for forwarding.

Charlie

From: Flanders-Wanner, Bridgette <bridgette_flanders-wanner@fws.gov>
Sent: Thursday, May 14, 2020 5:15 PM
To: BrownScott, Jennifer <jennifer_brownScott@fws.gov>; Thomas, Sue <sue_thomas@fws.gov>; Stenvall, Charlie <charlie_stenvall@fws.gov>; Green, Michael <michael_green@fws.gov>; Seto, Nanette <nanette_seto@fws.gov>; Munes, Ryan J <ryan_munes@fws.gov>; Unsworth, James W <james_unsworth@fws.gov>
Subject: FW: Oysterculture / Shorebird Interaction Study

Hot off the press!

Bridgette Flanders
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"What gets us into trouble is not what we don't know. It's what we know for sure that just ain't so." - Mark Twain

From: Ferrier, Jackie <jackie_ferrier@fws.gov>
Sent: Thursday, May 14, 2020 12:45 PM
To: De La Cruz, Susan E <sdelacruz@usgs.gov>; Woo, Isa <iwoo@usgs.gov>; So, Khem <khem_so@fws.gov>; Nelson, David M <davidnelson@usgs.gov>; Nakai, Glynnis <glynnis_nakai@fws.gov>; Flanders-Wanner, Bridgette <bridgette_flanders-wanner@fws.gov>; Loverti, Vanessa <vanessa_loverti@fws.gov>
Cc: Ritchie, William <william_ritchie@fws.gov>
Subject: Fw: [EXTERNAL] Oysterculture shorebird interaction study

Very interesting paper about shorebirds and aquaculture.

Thanks,
Jackie

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Jackie Ferrier  
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**From:** David Beugli <[wghoga@gmail.com](mailto:wghoga@gmail.com)>

**Sent:** Thursday, May 14, 2020 11:38 AM

**To:** Ferrier, Jackie <[jackie\\_ferrier@fws.gov](mailto:jackie_ferrier@fws.gov)>; Ritchie, William <[william\\_ritchie@fws.gov](mailto:william_ritchie@fws.gov)>; Kim Patten <[pattenk.wsu@gmail.com](mailto:pattenk.wsu@gmail.com)>; Steven R. Booth <[boothswa@comcast.net](mailto:boothswa@comcast.net)>

**Subject:** [EXTERNAL] Oysterculture shorebird interaction study

All,

As a follow up to our call regarding a bird foraging study I have attached a study from Delaware Bay that observed shorebirds including the red knot to determine relationships between foraging and habitat types.

I thought the methods were pretty interesting and the results are encouraging.

Thanks,  
David

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