

Accepted Manuscript

A comparison of modes of upwelling-favorable wind variability in the Benguela and California current ecosystems

Marisol García-Reyes, Tarron Lamont, William J. Sydeman, Bryan A. Black, Ryan R. Rykaczewski, Sarah Ann Thompson, Steven J. Bograd



PII: S0924-7963(17)30015-5
DOI: doi: [10.1016/j.jmarsys.2017.06.002](https://doi.org/10.1016/j.jmarsys.2017.06.002)
Reference: MARSYS 2990
To appear in: *Journal of Marine Systems*
Received date: 6 January 2017
Revised date: 26 May 2017
Accepted date: 14 June 2017

Please cite this article as: Marisol García-Reyes, Tarron Lamont, William J. Sydeman, Bryan A. Black, Ryan R. Rykaczewski, Sarah Ann Thompson, Steven J. Bograd , A comparison of modes of upwelling-favorable wind variability in the Benguela and California current ecosystems, *Journal of Marine Systems* (2017), doi: [10.1016/j.jmarsys.2017.06.002](https://doi.org/10.1016/j.jmarsys.2017.06.002)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A comparison of modes of upwelling-favorable wind variability in the Benguela and California current ecosystems

Marisol García-Reyes^{a,*}, Tarron Lamont^{b,c}, William J. Sydeman^{a,d}, Bryan A. Black^e, Ryan R. Rykaczewski^f, Sarah Ann Thompson^a, Steven J. Bograd^g

^a Farallon Institute, 101 H St. Suite Q, Petaluma, CA 94952, USA

^b Oceans & Coasts Research Branch, Department of Environmental Affairs, Private Bag X4390, Cape Town, 8000, South Africa

^c Marine Research Institute and Department of Oceanography, University of Cape Town, Private Bag X3, Rondebosch, 7701, South Africa

^d Bodega Marine Laboratory, University of California, Davis, P.O. Box 247, Bodega Bay, CA 94923, USA

^e Marine Science Institute, University of Texas, Port Aransas, TX, USA

^f Department of Biological Sciences & Marine Science Program, University of South Carolina, Columbia, SC, USA

^g Environmental Research Division, Southwest Fisheries Science Center, NOAA, Monterey, California, USA

* Corresponding author e-mail: marisolgr@faralloninstitute.org

Abstract

The California Current System (CCS) has two independent seasonal modes of upwelling variability, summer and winter, driven by different atmospheric processes. The variability of upwelling winds during winter is particularly important as strong, episodic events, driven by atmospheric teleconnections with the equatorial Pacific that are active in this season, impact ecological systems along the west coast of North America. Given the importance of upwelling seasonality to ecosystem function, we hypothesize that the Benguela Current System (BCS) shows similar independent seasonal modes of upwelling variability. To test this hypothesis, compare modes of variability between systems, and investigate potential drivers, we use an upwelling index derived from NCEP2 wind data (1979-2014) for the

Download English Version:

<https://daneshyari.com/en/article/10223870>

Download Persian Version:

<https://daneshyari.com/article/10223870>

[Daneshyari.com](https://daneshyari.com)