



A reply to McMahon et. al. (2008)

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view

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6 Recently, McMahon et al. (2008) criticized our article concerning the impacts of climate
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8 variability on the reproductive parameters of southern elephant seals (Vergani et al 2008).
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10 We characterized ENSO climate anomalies in the periphery of Antarctica using
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12 reanalysed global atmospheric data from Kalnay et al. (1996), which encompasses over
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14 40 years of observations. We considered existing evidence for ENSO signals in
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16 delineated regions of Antarctica and the current understanding of propagation
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18 mechanisms from the source region in the tropical Pacific Ocean to high latitudes of the
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20 Southern Hemisphere. We then explored cause and effect relationships by comparing an
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22 index of El Niño and La Niña occurrences with a 10-year-long dataset of weaning mass
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24 for elephant seal pups (n = 1027 individuals). McMahon et al. (2008) consider Biuw et al.
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26 (2007); however, Biuw et al. (2007) is not relevant to our research because it is not
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28 possible to draw conclusions about the impact of interannual climate variations on the
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30 basis of a single year of data. McMahon et al. (2008) also highlight the importance of fish
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32 in the diet of elephant seals based on Bornemann et al. (2000). However, Bornemann et
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34 al. (2000) did not examine the diet and only speculate on the potential importance of fish
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36 in the elephant seal diet. Furthermore McMahon et al. (2008) overlooked the conclusion
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38 of Kwok and Comiso (2002) who pointed out that the Bellinghausen Sea region is unique
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40 in its relations with ENSO from a physical point of view. Overall, our results indicate that
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42 our proposed elephant seal model could be related to physical ENSO-related properties.
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