Displacement of fishing effort by Large Scale Marine Protected Areas

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Background

Objectives

Methods

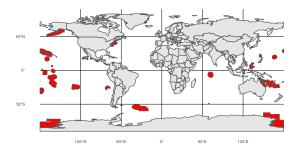
Preliminary results

Future work



MPAs

- ▶ Marine Protected Areas (MPAs): Spatial management of fishing effort -Areas $> 250,000~\rm Km^2$ are Large Scale (LSMPAs)¹
 - Implemented in the pelagic environment
 - Dominant human activity is industrial fishing²

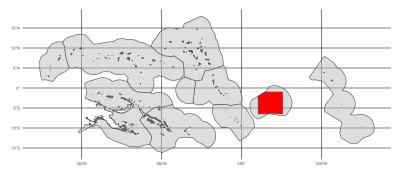


¹Toonen et al. 2013.

²Gray et al. 2017.

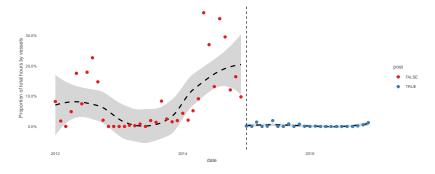
PIPA

- ► Phoenix Island Protected Area
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 - ▶ Implemented in 2015
 - ▶ Kiribati is part of the PNA, along with other 8 countries



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- ► Recent focus of *Blue paradox*³



³McDermott et al. 2018.



Methods

Data

Analyses

$$y_{i,t} = \alpha + \beta_1 Post_t + \beta_2 Treat_i + \beta_3 Post_t \times Treat_i + \mu_1 Y_t + \mu_2 Y_t^2 + \phi_t + \gamma_i + \epsilon_{i,t}$$

$$y_{i,t} = \alpha + \beta_1 Post_t + \beta_{2,i} Country_i + \beta_{3,i} Post_t \times Country_i + \epsilon_{i,t}$$

Preliminary results



References I

- Gray, Noella J. et al. (2017). "Human Dimensions of Large-scale Marine Protected Areas: Advancing Research and Practice". In: Coastal Management, pp. 1–9. ISSN: 0892-0753. DOI: 10.1080/08920753.2017.1373448. URL: https://www.tandfonline.com/doi/full/10.1080/08920753.2017.1373448 (visited on 11/08/2017).
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 - Toonen, Robert J et al. (2013). "One size does not fit all: the emerging frontier in large-scale marine conservation." In: *Mar Pollut Bull* 77.1-2, pp. 7–10. DOI: 10.1016/j.marpolbul.2013.10.039. URL: http://dx.doi.org/10.1016/j.marpolbul.2013.10.039 (visited on 09/29/2018).