



Migrant Sea Routes and Mortality in the Mediterranean

Impacts of NGO SAR operations on migrants survival from 2015-2019

Background

As of August 2018, 2.1 million migrants have arrived in Europe through the Mediterranean. There are three main sea routes through the Mediterranean in which migrants have traveled: the ‘Western route’ from Morocco to Spain, the ‘Eastern route’ from Turkey to Greece, and the ‘Central route’ from Africa to Italy.

Crossing the Mediterranean Sea has proven to be an extremely dangerous endeavor for migrants. An estimated 17,000 people have died at sea since 2014. It has become a common argument in current political discourse that maritime Search and Rescue (SAR) operations, run by non-governmental agencies (NGOs), are a ‘pull factor’ that encourages migration. Subsequently, there has been great efforts by governments to take away these agencies’ right to operate through vessel seizure and criminalization of their rescue efforts.

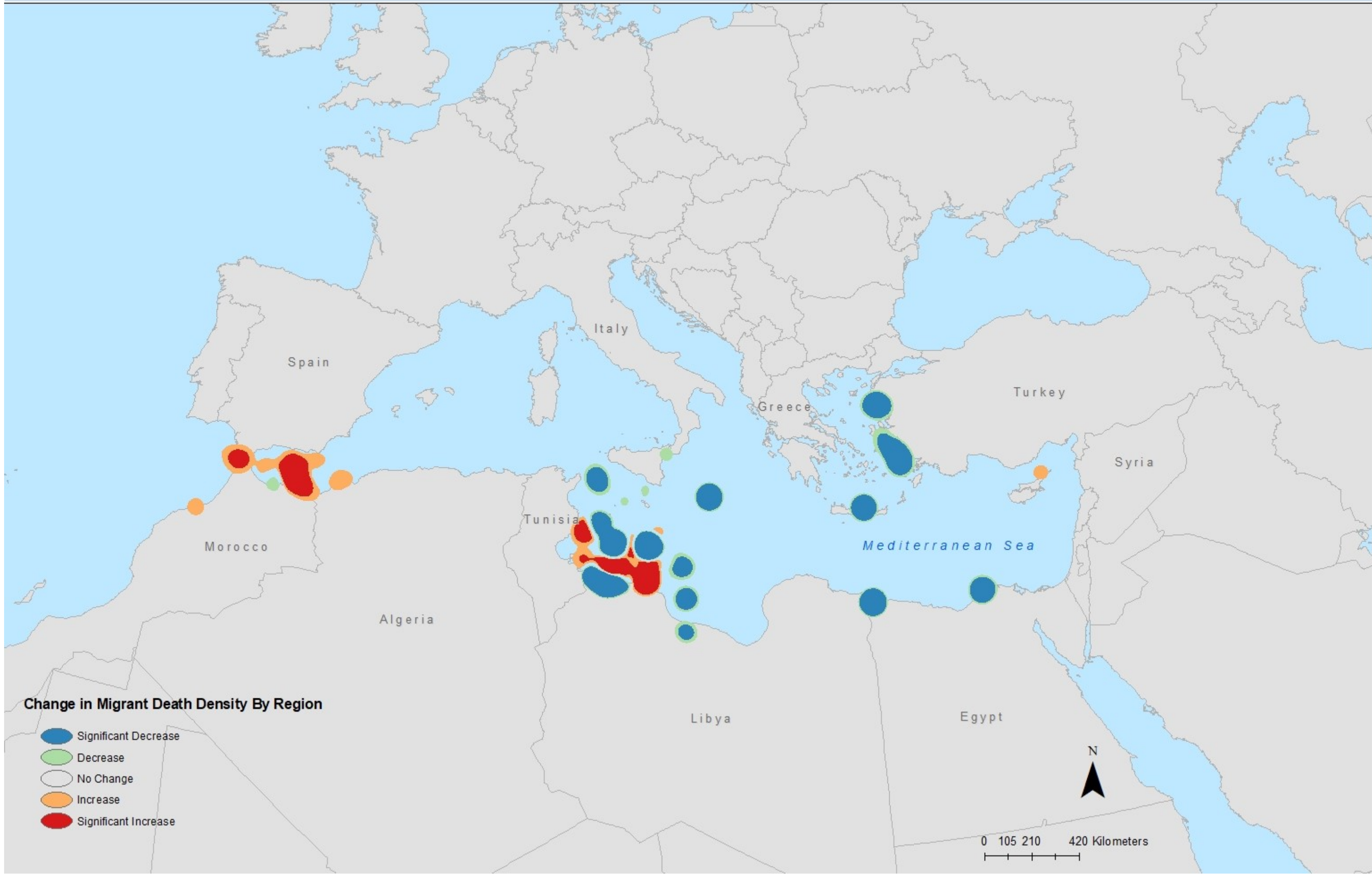
This project examines mortality rates and the presence of non-governmental SAR agencies among these three migratory paths. The aim of this study is to contribute to the current political discourse over whether or not non-governmental agencies’ presence in the Mediterranean region is “beneficial” from a humanitarian perspective, in the sense that there would be less deaths in areas with strong NGO presence. The results could help governments assess whether or not the trend towards policies that limit NGO’s SAR operations is beneficial or detrimental.

Methodology

Using migrant mortality data sets from the International Organization of Migration’s “Missing Migrants Project”, I first plotted the latitudinal and longitudinal location of all mortality ‘events’ from 2015-2019, where an ‘event’ was considered to be at least one migrant death occurring in transit. I compiled data from the European Union Agency for Fundamental Rights on NGO ships involved in search and rescue operations from 2015 to 2019 and aggregated the information based on the three regions of interest.

Next, I grouped the mortality data into two sets, representing 2015-2016 deaths and 2017-2018 deaths. For my analysis I ran the kernel density tool on both time brackets, separately, to see where deaths were most concentrated and compared this visually with the average amount of NGO’s that had been operating at that time. Lastly, I performed change detection to quantify how fatality hotspots changed across the two time periods.

Change in Migrant Death Density in the Mediterranean 2015-2016 vs. 2018-2019

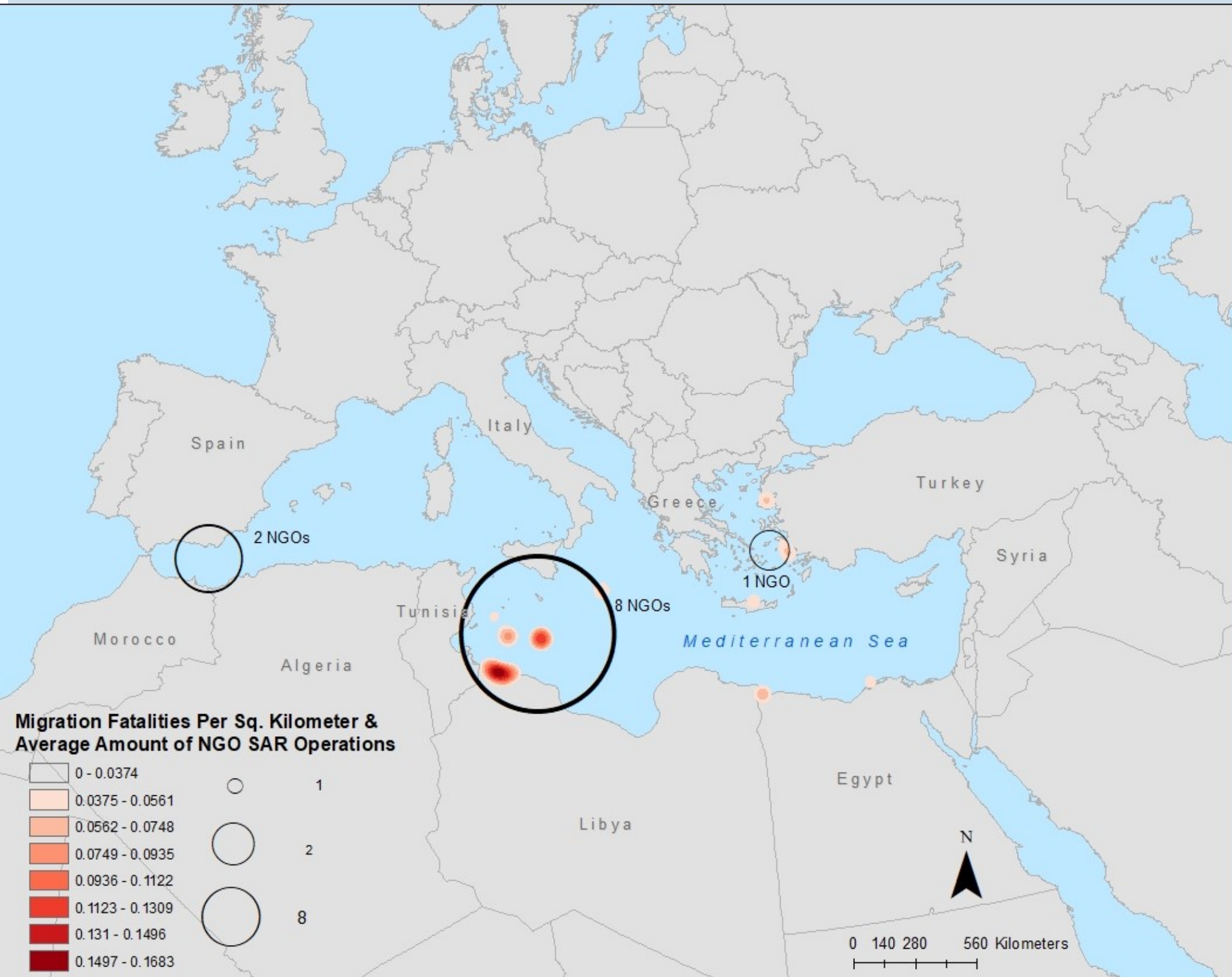


Results

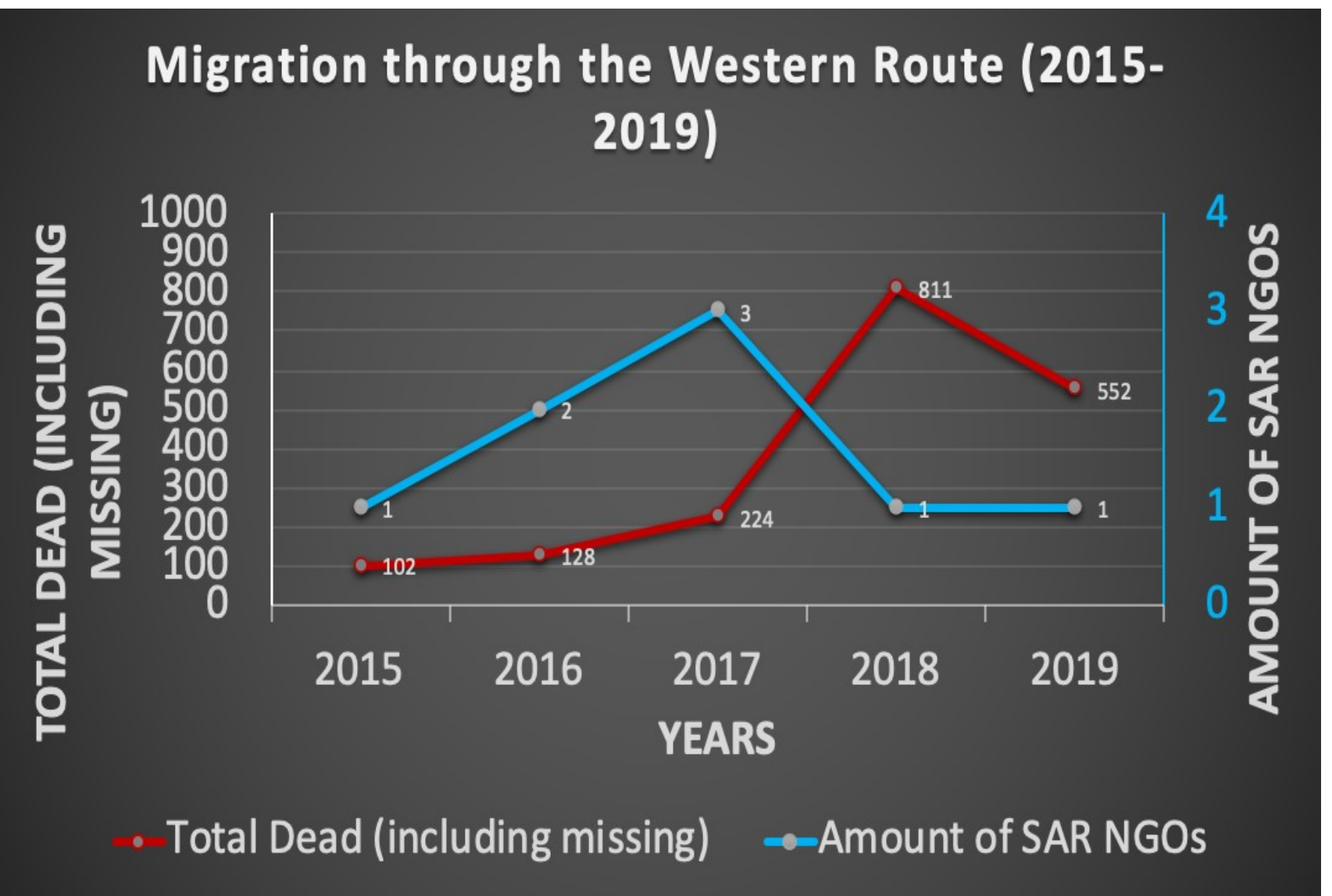
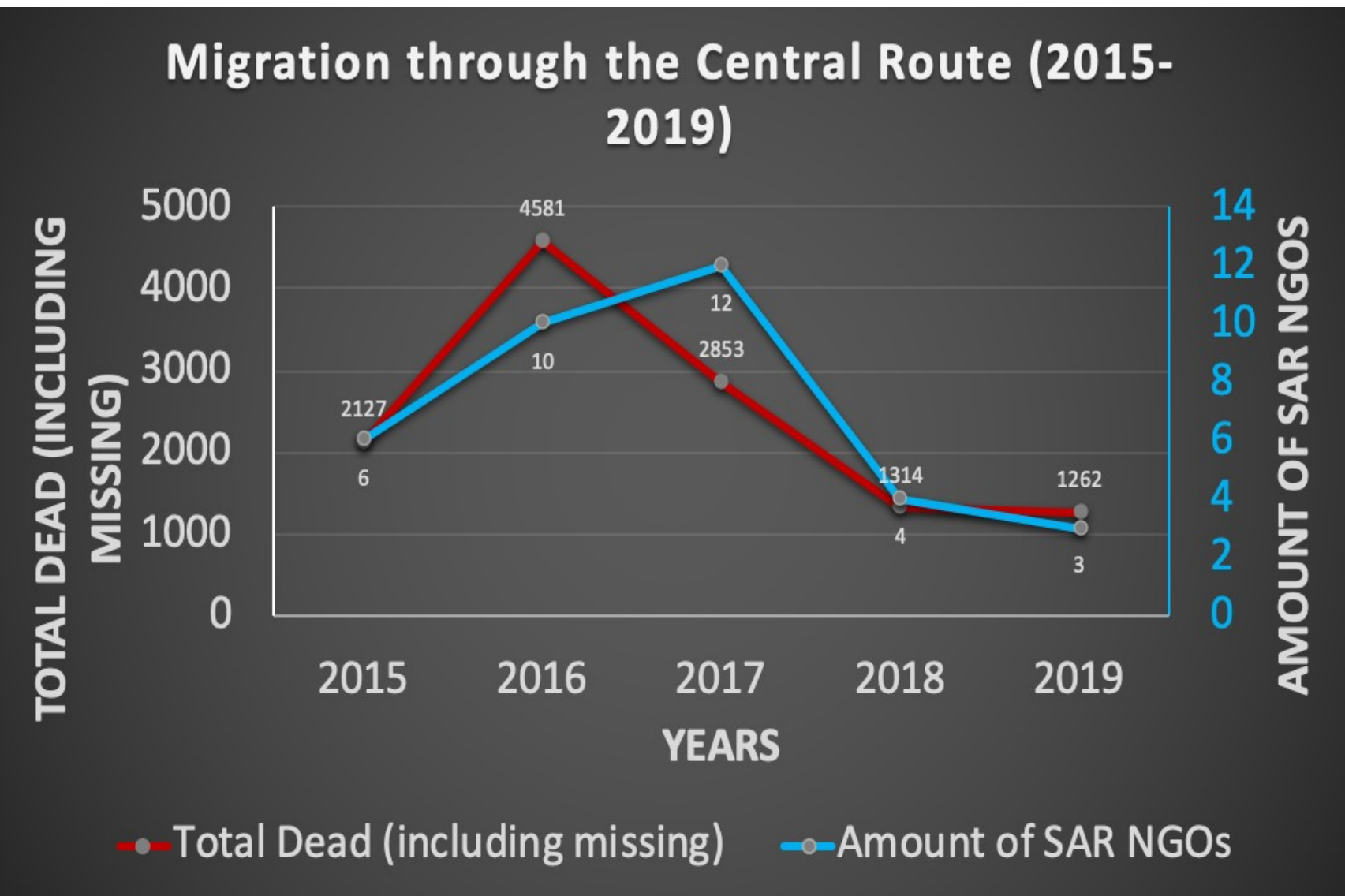
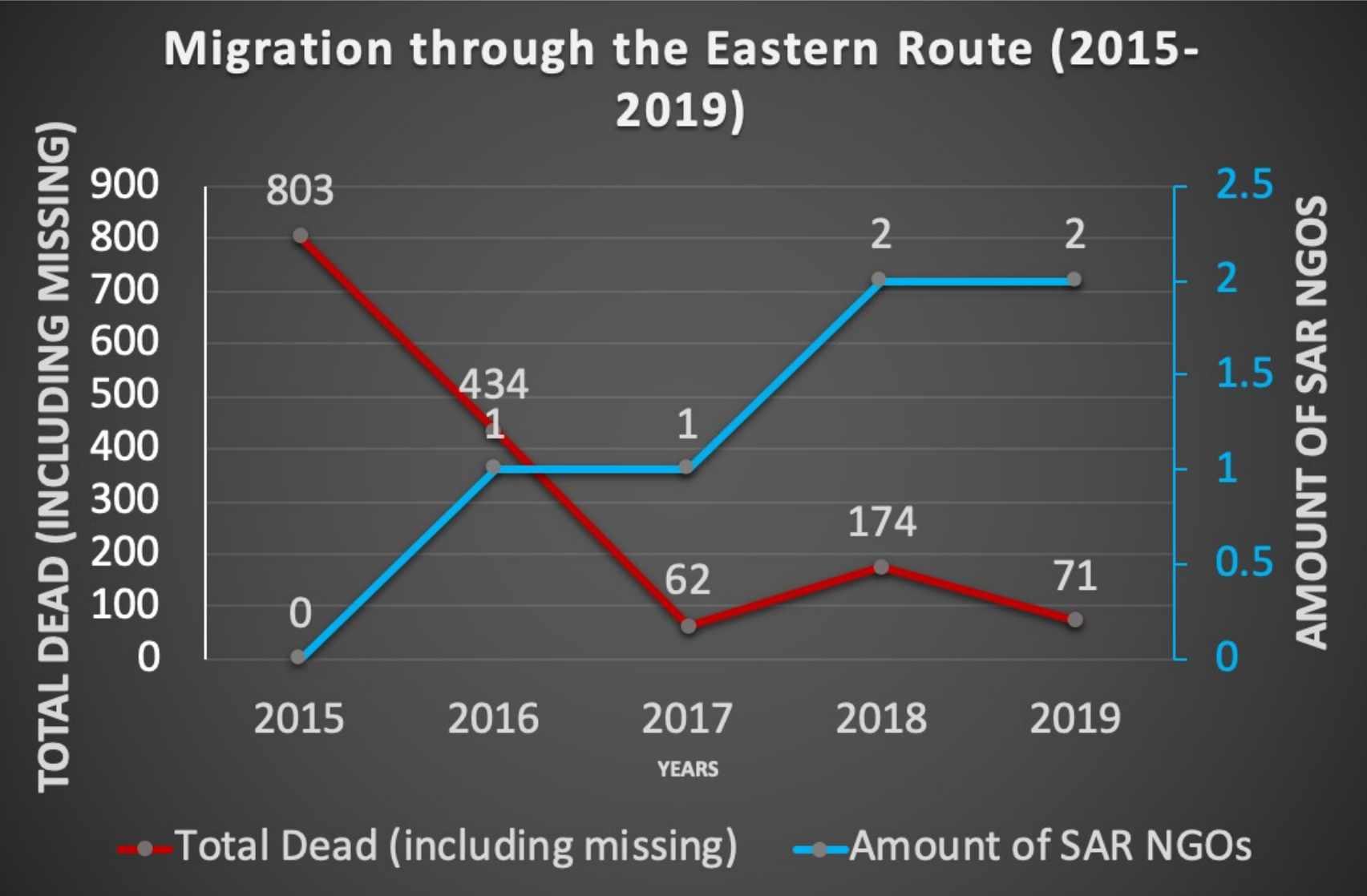
The ‘Migrant Fatality Density and NGO SAR’ maps show how the western and central route experienced a greater concentration of deaths in 2018-2019 than the eastern route. This result is further substantiated by the ‘Change in Migrant Death Density’ map. The average amount of SAR boats between 2015-2016, and between 2018-2019, gives the false sense that NGO operations were relatively consistent between this entire time period. The number of NGOs did change significantly on a yearly basis and the line graphs (to the right) reflect this broader picture. NGO operations decreased across all three routes between 2015 - 2019. More specifically, NGO SAR operations decreased by five boats along the central route and by one boat along both the western and eastern route.

While the results of this study may suggest NGO SAR operations positively correlated with less migratory deaths, shown for instance by the fact along the western route (between 2017 and 2018) total migrant deaths increased as NGO presence decreased, this pattern was inconsistent across years for all three regions. Thus, the results of this study remain inconclusive to substantiate whether or not migrants die in higher rates in sea migration routes with less control by SAR boats.

Migrant Fatality Density and NGO SAR Presence in the Mediterranean 2015-2016



Migrant Fatality Density and NGO SAR Presence in the Mediterranean 2018-2019



Limitations

Though this study found no clear correlation between migratory deaths and NGO presence, conclusions were drawn from limited data. Data on NGO SAR operations in the Mediterranean is extremely sparse, and continuous time-series data is not readily available. SAR operations in the region have not been able to consistently operate due to legal procedures filed against them, which have resulted in seized vessels, arrested crew members, and port closures. While the results of this study showed no stronger correlation with the available data, greater contextual detail and further investigation is needed to be able to answer the spatial question of whether migrants are dying in higher rates in sea migration routes less patrolled by non-governmental SAR agencies.

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Data Sources: UNHCR, Flanders Marine Institute, Humanitarian Data Exchange, IOM Missing Migrant, European Union Agency for Fundamental Rights, Natural Earth, ESRI

Projection: Lambert Conformal Conic

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