

# **MISSING MIGRANTS ON MEDITERIAN ROOTS**

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## **1. Introduction**

### **a. Background**

Missing Migrants Project tracks deaths of migrants, including refugees and asylum-seekers, who have gone missing along mixed migration routes worldwide.

The research behind this project began with the October 2013 tragedies, when at least 368 individuals died in two shipwrecks near the Italian island of Lampedusa. Since then, Missing Migrants Project has developed into an important hub and advocacy source of information that media, researchers, and the general public access for the latest information. With a count surpassing 60,000 over the last two decades, IOM calls on all the world's governments to address what it describes as "an epidemic of crime and abuse." Missing Migrants Project is a joint initiative of IOM's Global Migration Data Analysis Centre (GMDAC) and Media and Communications Division (MCD). GMDAC has also published three reports on this issue: Fatal Journeys: Tracking Lives Lost during Migration, Fatal Journeys Volume 2: Identification and Tracing of Dead and Missing Migrants. A third volume was published in two parts in 2017, Fatal Journeys Volume 3 Part 1: Improving Data on Missing Migrants, and Volume 3 Part 2: Improving Data on Missing Migrants. Missing Migrants Project is licensed under a Creative Commons Attribution 4.0 International License. This means that Missing Migrants Project data are free to share and adapt, as long as the appropriate attribution is given. This includes stating that the source is "IOM's Missing Migrants Project", and indicating if changes were made to the data. Ideally, a link to this website should also be included. Missing Migrants Project is made possible by funding by UK Aid from the Government of the United Kingdom; however, the views expressed do not necessarily reflect the Government of the United Kingdom's official policies.

### **b. Problem**

I hope that monitoring these tragic events and studying the data relating to them can help to avoid a recurrence of these. We are all human beings.

### c. Context

Missing Migrants Project tracks deaths of migrants, including refugees and asylum-seekers, who have died or gone missing in the process of migration towards an international destination. Please note that these data represent minimum estimates, as many deaths during migration go unrecorded. We strongly encourage users to read more about our methodology before using this data.

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Variable Name	Description
Web ID	An automatically generated number used to identify each unique entry in the dataset.
Region of incident	The region in which an incident took place.
Reported date	Estimated date of death. In cases where the exact date of death is not known, this variable indicates the date in which the body or bodies were found. In cases where data are drawn from surviving migrants, witnesses or other interviews, this variable is entered as the date of the death as reported by the interviewee. At a minimum, the month and the year of death is recorded. In some cases, official statistics are not disaggregated by the incident, meaning that data is reported as a total number of deaths occurring during a certain time period. In such cases the entry is marked as a "cumulative total," and the latest date of the range is recorded, with the full dates recorded in the comments.
Reported year	The year in which the incident occurred.

<b>Variable Name</b>	<b>Description</b>
Reported month	The month in which the incident occurred.
Number dead	The total number of people confirmed dead in one incident, i.e. the number of bodies recovered. If migrants are missing and presumed dead, such as in cases of shipwrecks, leave blank.
Number missing	The total number of those who are missing and are thus assumed to be dead. This variable is generally recorded in incidents involving shipwrecks. The number of missing is calculated by subtracting the number of bodies recovered from a shipwreck and the number of survivors from the total number of migrants reported to have been on the boat. This number may be reported by surviving migrants or witnesses. If no missing persons are reported, it is left blank.
Total dead and missing	The sum of the 'number dead' and 'number missing' variables.
Number of survivors	The number of migrants that survived the incident, if known. The age, gender, and country of origin of survivors are recorded in the 'Comments' variable if known. If unknown, it is left blank
Number of females	Indicates the number of females found dead or missing. If unknown, it is left blank.
Number of males	Indicates the number of males found dead or missing. If unknown, it is left blank.

<b>Variable Name</b>	<b>Description</b>
Number of children	Indicates the number of individuals under the age of 18 found dead or missing. If unknown, it is left blank.
Country of origin	Country of birth of the decedent. If unknown, the entry will be marked "unknown".
Region of origin	Region of origin of the decedent(s). In some incidents, region of origin may be marked as "Presumed" or "(P)" if migrants travelling through that location are known to hail from a certain region. If unknown, the entry will be marked "unknown".
Cause of death	The determination of conditions resulting in the migrant's death i.e. the circumstances of the event that produced the fatal injury. If unknown, the reason why is included where possible. For example, "Unknown – skeletal remains only", is used in cases in which only the skeleton of the decedent was found.
Location description	Place where the death(s) occurred or where the body or bodies were found. Nearby towns or cities or borders are included where possible. When incidents are reported in an unspecified location, this will be noted.
Location coordinates	Place where the death(s) occurred or where the body or bodies were found. In many regions, most notably the Mediterranean, geographic coordinates are estimated as precise locations are not often known. The location description should always be checked against the location coordinates.

Variable Name	Description
Migration route	Name of the migrant route on which incident occurred, if known. If unknown, it is left blank.
UNSD geographical grouping	Geographical region in which the incident took place, as designated by the United Nations Statistics Division (UNSD) geoscheme.
Source quality	Incidents are ranked on a scale from 1-5 based on the source(s) of information available. Incidents ranked as level 1 are based on information from only one media source. Incidents ranked as level 2 are based on information from uncorroborated eyewitness accounts or data from survey respondents. Incidents ranked as level 3 are based on information from multiple media reports, while level 4 incidents are based on information from at least one NGO, IGO, or another humanitarian actor with direct knowledge of the incident. Incidents ranked at level 5 are based on information from official sources such as coroners, medical examiners, or government officials OR from multiple humanitarian actors.
Comments	Brief description narrating additional facts about the death. If no extra information is available, this is left blank.

## 2.DATAFRAME

After checking the data frame and cleaning the data frame we got certain values. The null values are taken away from the given data set. This shows us the raw data of the given data set.

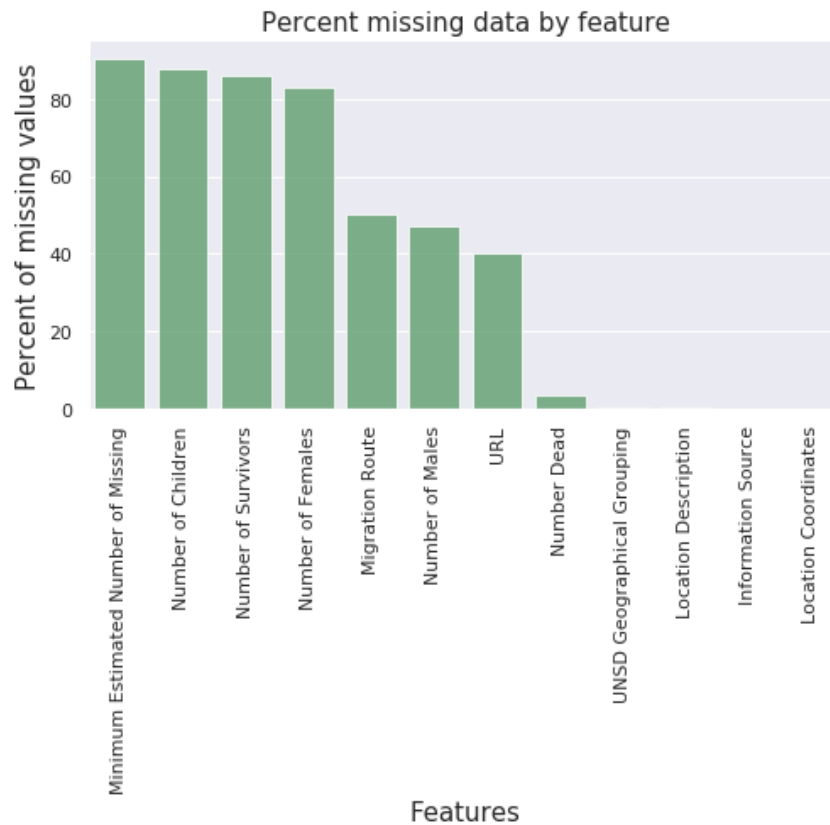
	Total	Percent
<b>Minimum Estimated Number of Missing</b>	4830	90.568161
<b>Number of Children</b>	4689	87.924245
<b>Number of Survivors</b>	4584	85.955372
<b>Number of Females</b>	4436	83.180199
<b>Migration Route</b>	2673	50.121883
<b>Number of Males</b>	2520	47.252953
<b>URL</b>	2141	40.146259
<b>Number Dead</b>	191	3.581474
<b>UNSD Geographical Grouping</b>	11	0.206263
<b>Location Description</b>	10	0.187512
<b>Information Source</b>	2	0.037502
<b>Location Coordinates</b>	1	0.018751

This table tells us about the missing people. It gives us that approx. 90.56 number of people are missing out of which 88 % of the children, 83% of the females and 48% of the males are missing.

Later we can see in the graph about the same information.

## 2. EXPLORATORY DATA ANALYSIS

After getting the featured data set, we drew the pictorial representation of the data.



We also computed the region affected and have people missing from various places. We have listed out these places below.

US-Mexico Border	1337
North Africa	1239
Mediterranean	984
Sub-Saharan Africa	475
Central America	309
Europe	249
Horn of Africa	235
Middle East	164
South Asia	151
Southeast Asia	96
Caribbean	59
South America	28
East Asia	5
Central Asia	1
North America	1

## 4.Pre-processing the DATA

First, I create a copy of the dataset. At this point, I convert the dates to date time. Now I separate the geographic coordinates, so that they can be subsequently applied for a geographical visualization. Now I replace the NaN values of the 'Number Dead' and 'Minimum Estimated Number of Missing' features with 0.

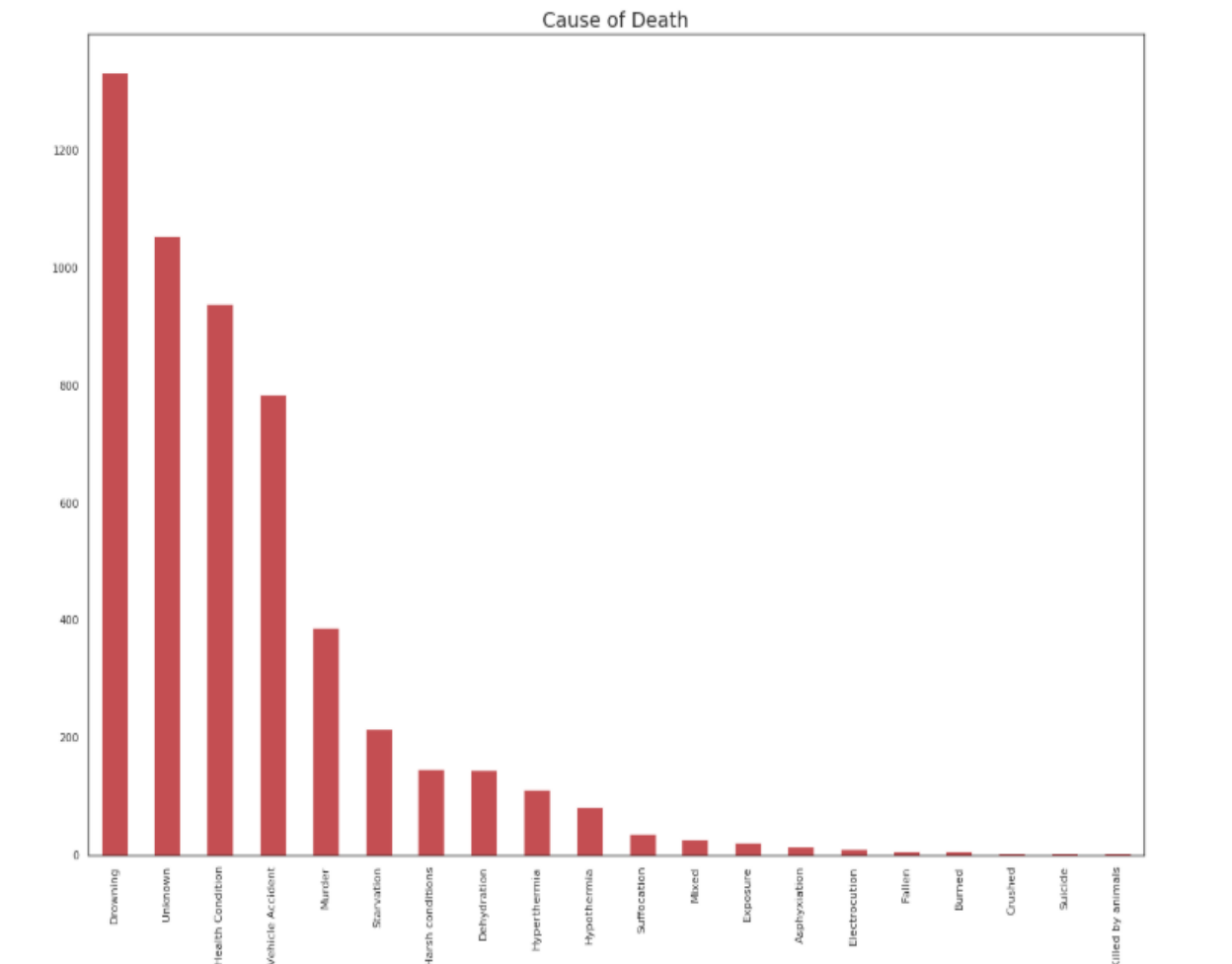
After processing the data, we went on to compute the reason why the people went missing.

### Reason people went missing.

Drowning	1331
Unknown	1054
Health Condition	938
Vehicle Accident	784
Murder	387
Starvation	215
Harsh conditions	147
Dehydration	145
Hyperthermia	113
Hypothermia	82
Suffocation	36
Mixed	27
Exposure	22
Asphyxiation	14
Electrocution	12
Fallen	8
Burned	8
Crushed	4
Suicide	3
Killed by animals	3

We depicted the table into graphical data. In this we show a bar chart of the same data that tells us about how the people went missing. We computed these values from the processed data.



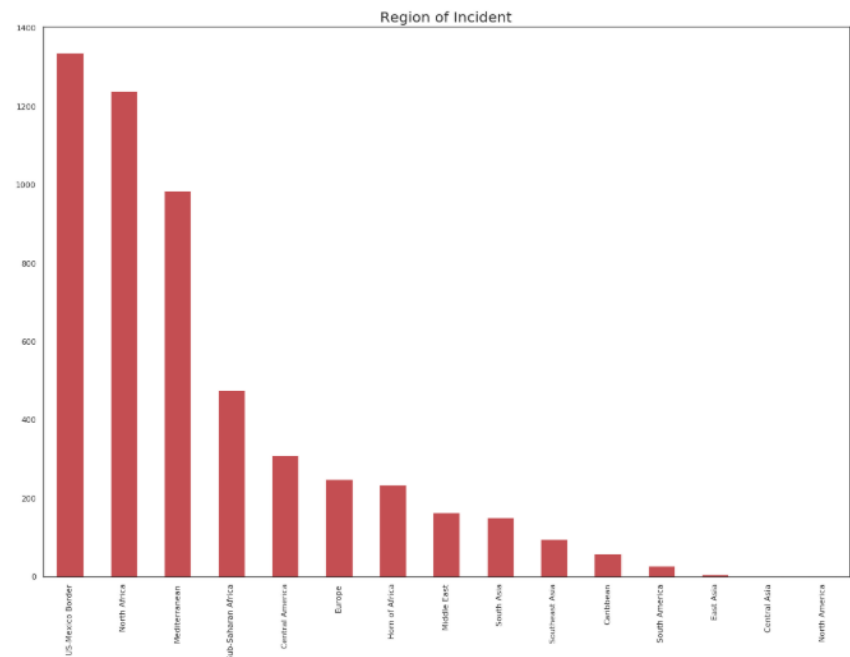


This graph shows that maximum people went missing due to **drowning**, whereas many of the conditions and causes were least unknown.

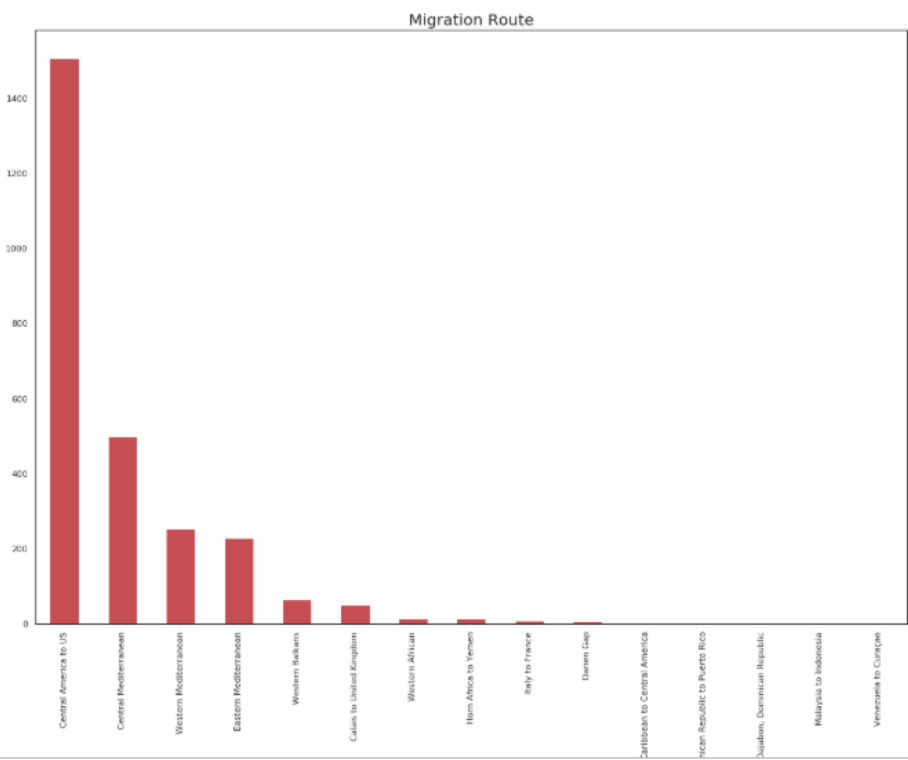
We also got to know that the MOST AFFECTED REGION, from where people went missing. It was noticed that US Mexico border showed maximum number of people missing and was the most affected area. It was later followed by NORTH AMERICA having number crossing more than 1200. We also had Meditterian Ocean having more than 1000 missing reports.

This was later followed by many places having numbers more than 500 and 100. Thus, we also have a pictorial representation of this REGION OF INCIDENTS.

# REGION OF INCIDENTS



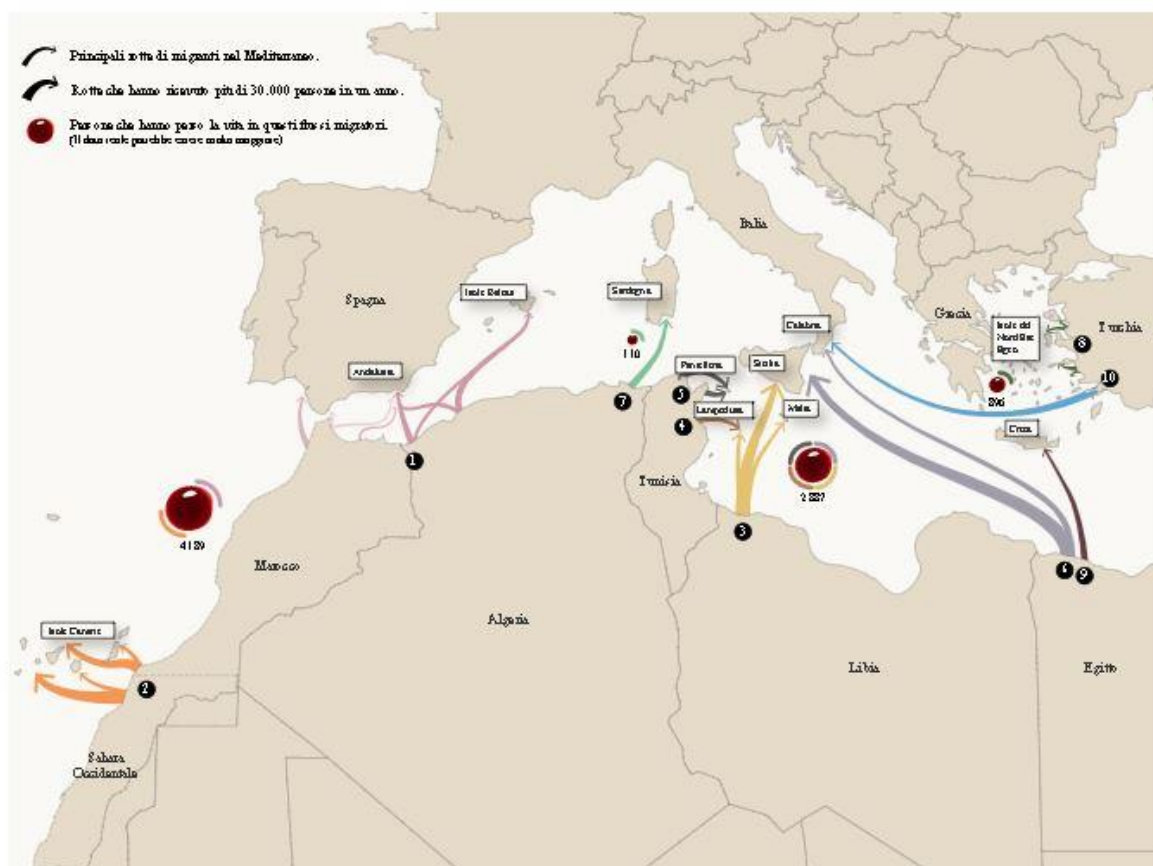
# MIGRATION OF ROUTE





The migrant routes in the Mediterranean have linked Africa and the Middle East to Europe since the early 1990s. The phenomenon of immigration by sea has increased hand in hand with the closure of the borders of European states following the adoption of a particularly restrictive entry visa regime for poor countries. The sea is crossed on makeshift boats, often old fishing boats, fiberglass boats or rafts. The main points of entry are the Spanish, Italian and Greek coasts. According to the United Nations High Commissioner for Refugees, the flows are mixed, ie composed of economic migrants and political refugees.

### The Mediterranean migratory routes



I take the data from 01/01/2014 to 12/31/2018, as 2019 is still incomplete and I wouldn't want to invalidate the data. Maybe I'll look at the latest data later.

*About half of the Mediterranean route accidents occurred in the Central Route.*

Incidents are ranked on a scale from 1-5 based on the source(s) of information available. Incidents ranked as level 1 are based on information from only one media source. Incidents ranked as level 2 are based on information from uncorroborated eyewitness accounts or data from survey respondents. Incidents ranked as level 3 are based on information from multiple media reports, while level 4 incidents are based on information from at least one NGO, IGO, or another humanitarian actor with direct knowledge of the incident. Incidents ranked at level 5 are based on information from official sources such as coroners, medical examiners, or government officials OR from multiple humanitarian actors.

## **5 CONCLUSION**

I want to clarify one thing immediately: The 'Total Dead and Missing' feature is precisely the sum of the dead or missing migrants. However, to be missing in the middle of the sea, unfortunately it is similar to calling it dead. The number appears to be falling. This is probably due to political actions starting in 2017 in Italy. (I will report the sources). However, it is correct to point out that the reduction of deaths is related to the sharp reduction in departures from the Libyan coast. The absolute number of deaths has fallen. This with regards to Mediterranean routes. Afterwards it will be necessary, however difficult, to analyse the evolution of the African routes.