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# Cetacean survey in the western Black Sea coast of Turkey and Romania

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**Final Meeting - ANEMONE Project**  
4<sup>th</sup> – 5<sup>th</sup> of March 2021, On-line Meeting



## **T4 Enhance stakeholders participation and public awareness on environmental issues**

### **A.T4.3 Case study on cetacean stranding and sighting surveys**

#### a) Ship survey

##### TURKEY

- Autumn 2019 -> Done
- Winter 2021 -> Delayed ... but planned next week!!
- A short film is prepared for dissemination.

##### ROMANIA

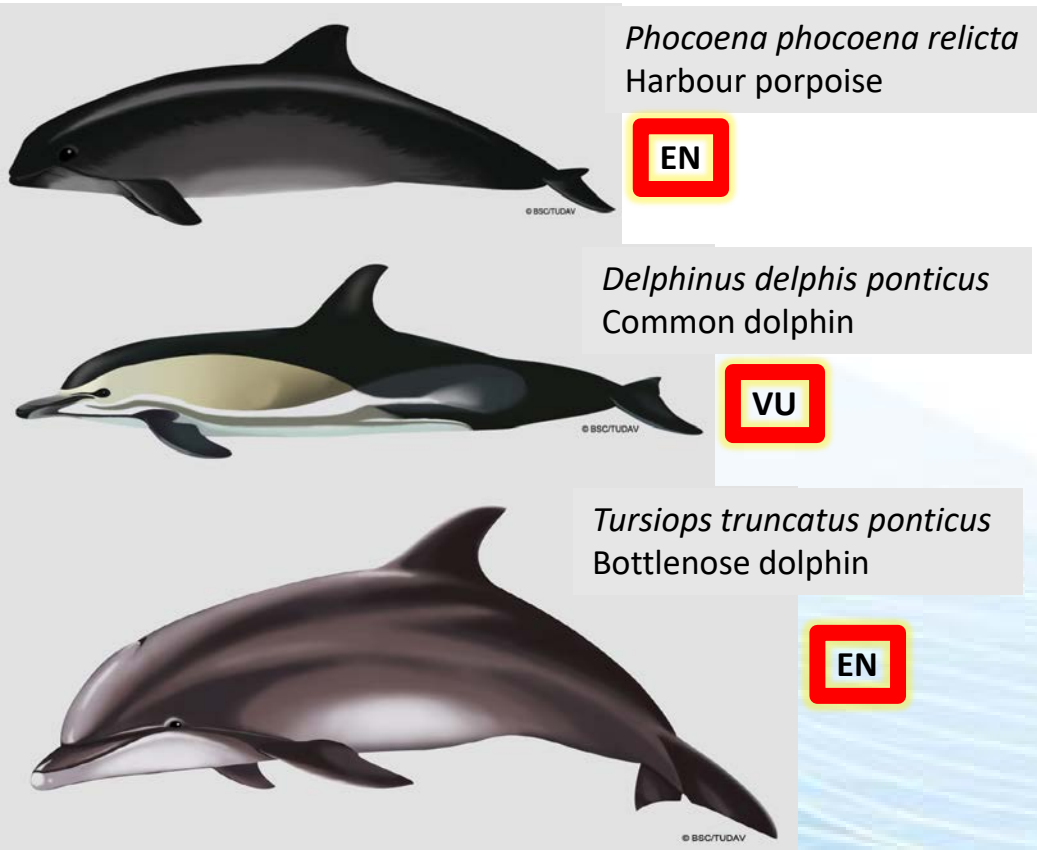
- 3 surveys: spring 2019 and summer 2019 and 2020

#### a) Stranding survey

January 2019- May 2020

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## Cetaceans in the Black Sea



### Some background facts

- Intensive dolphin fishery until 1983
- Prey depletion due to overfishing and bioinvasions
- Bycatch in turbot gillnets (esp. harbour porpoises)
- Mass mortality of harbour porpoise newborns (2016)
- CeNoBS survey 2019: the first basin-wide abundance estimate

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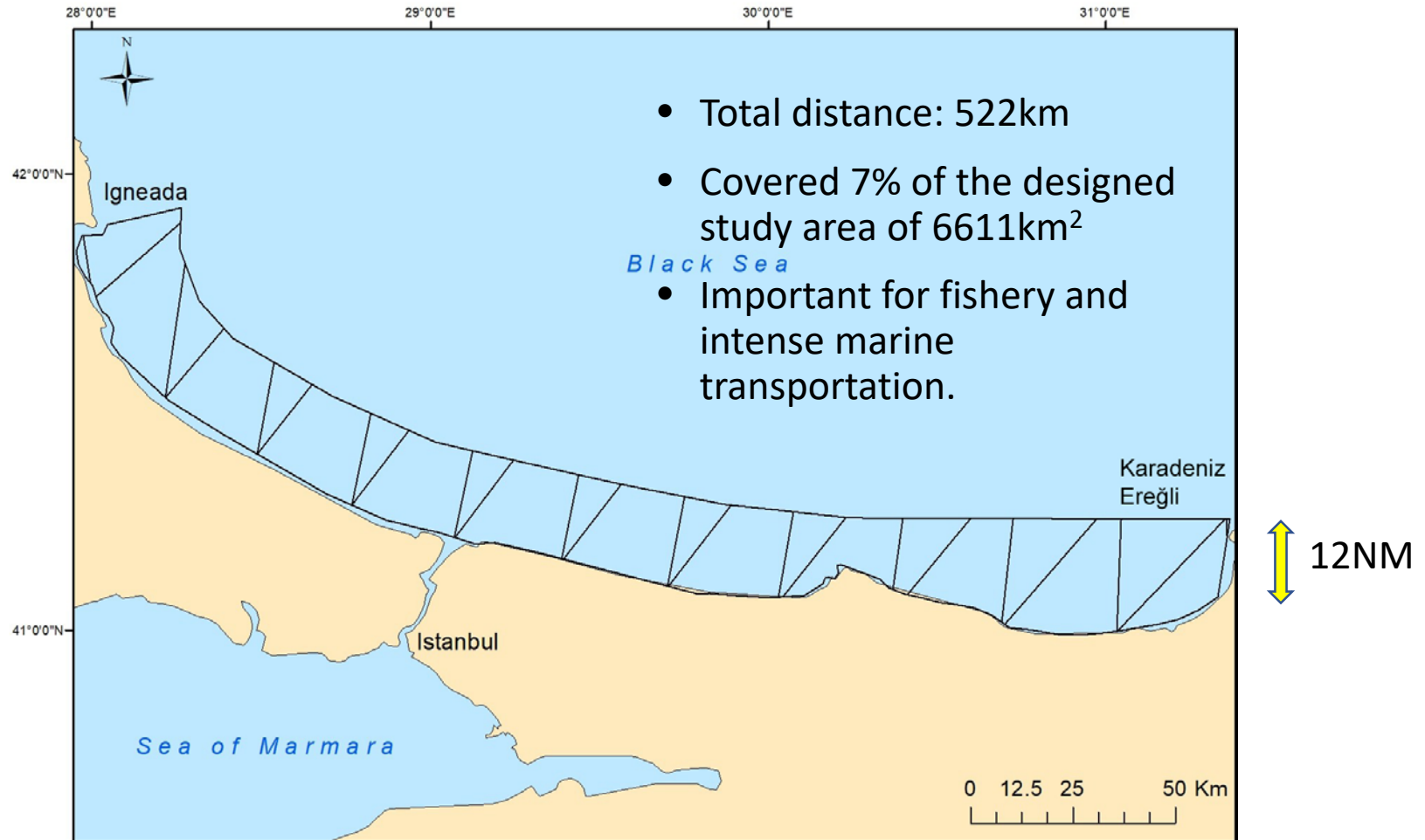
## a) Ship surveys



Our survey boat (Length – 12m)

# Surveyed area in the western coast of Turkish Black Sea

7-16 October 2019

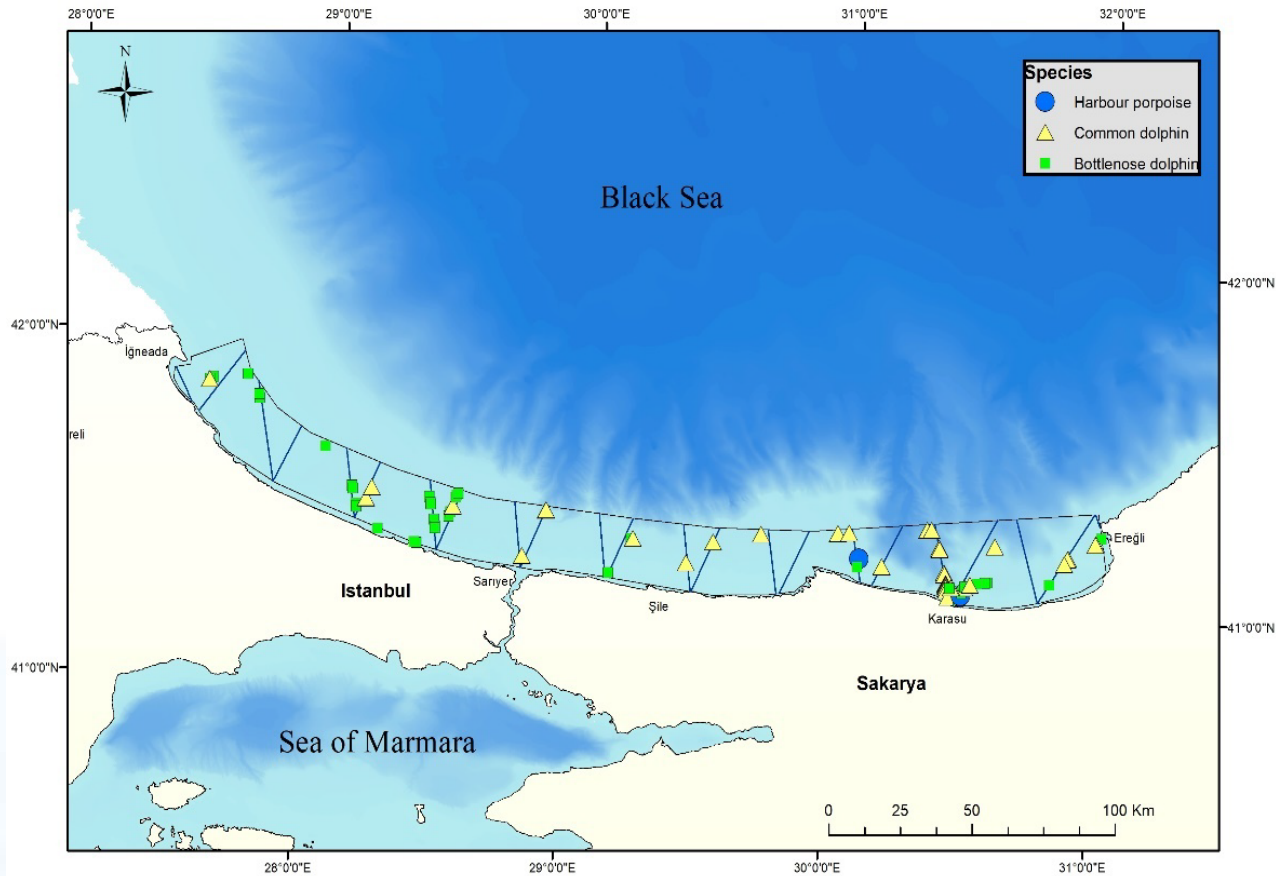




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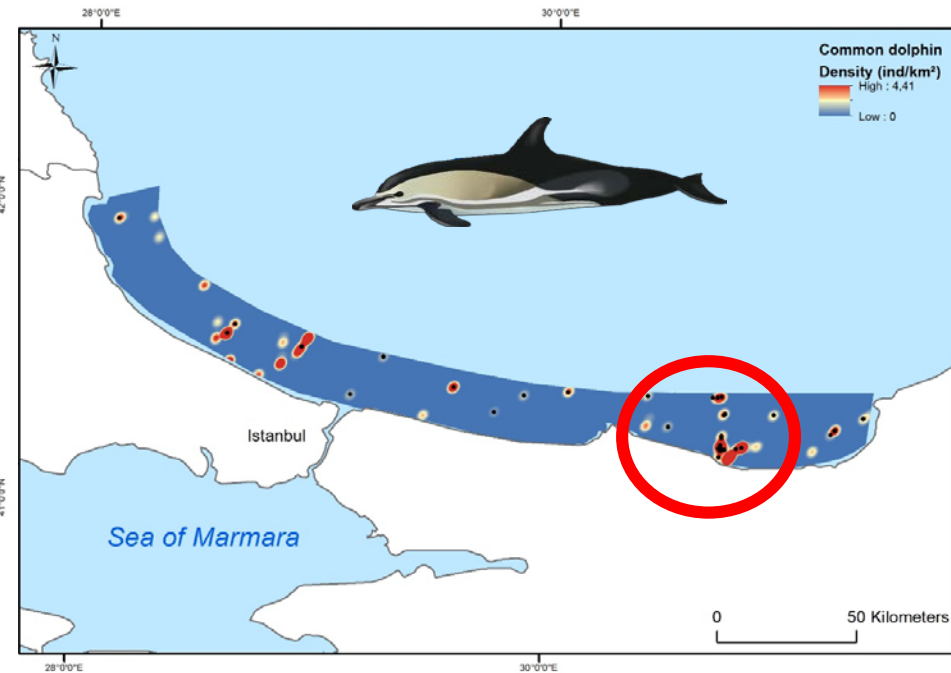
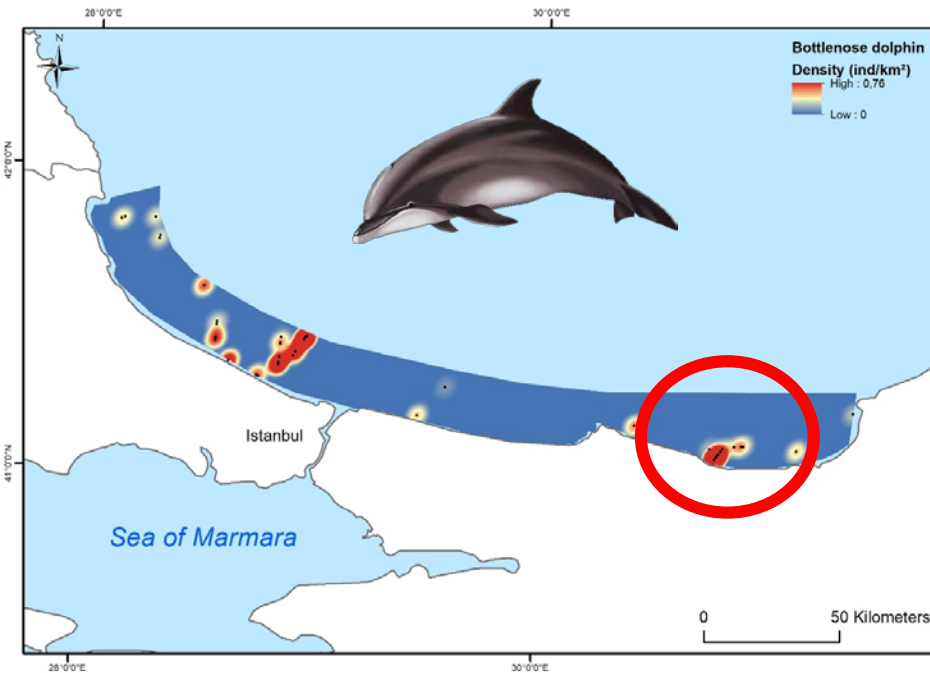


# Results



Species	Sightings	Mean group size	Sighting rate per 100km	Abundance estimate (95% CI)
Bottlenose dolphins	40	4.15	6.45	3919 (1751 - 8775)
Common dolphins	40	4.11	6.45	5047 (2154 - 11823)
Harbour porpoises	2	-	-	-

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**Sakarya Canyon:** Proposed as a candidate Important Marine Mammal Area (cIMMA)

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## Surveyed area in the territorial waters of Romania 3 surveys: spring 2019 and summer 2019 and 2020



- Romanian territorial waters (12 NM) between Vama Veche (Southern border) and Sulina (Northern border)
- Covered 7% of the designed study area of 5871,423 km<sup>2</sup>
- 12 transects with a distance of aprox. 420 km
- Important for fishery and intense marine transportation but also part of several MPAs

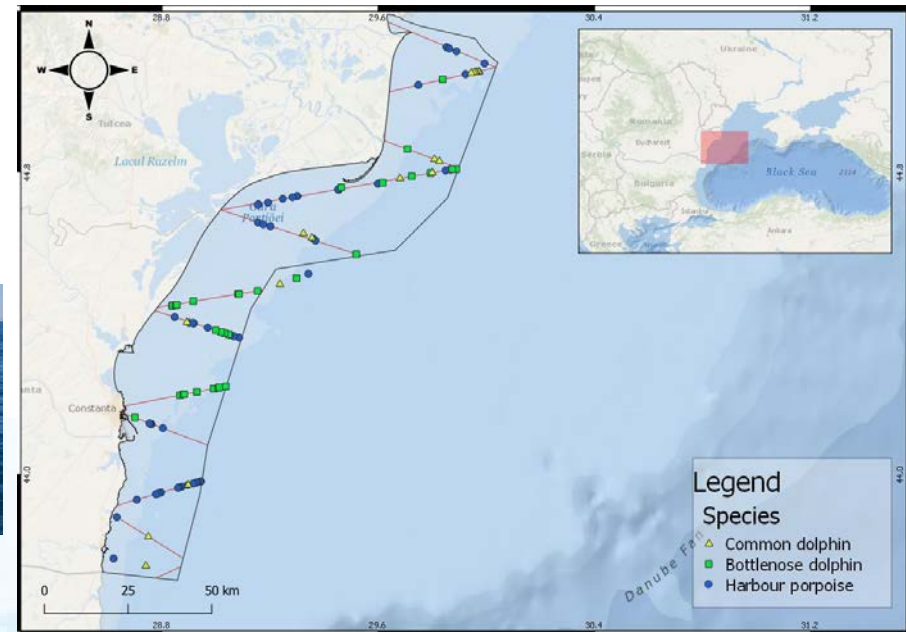
Study area and transects designed for Romanian waters.



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## Results

As expected, mean group size, sighting rates and abundance estimates differed between the surveys.

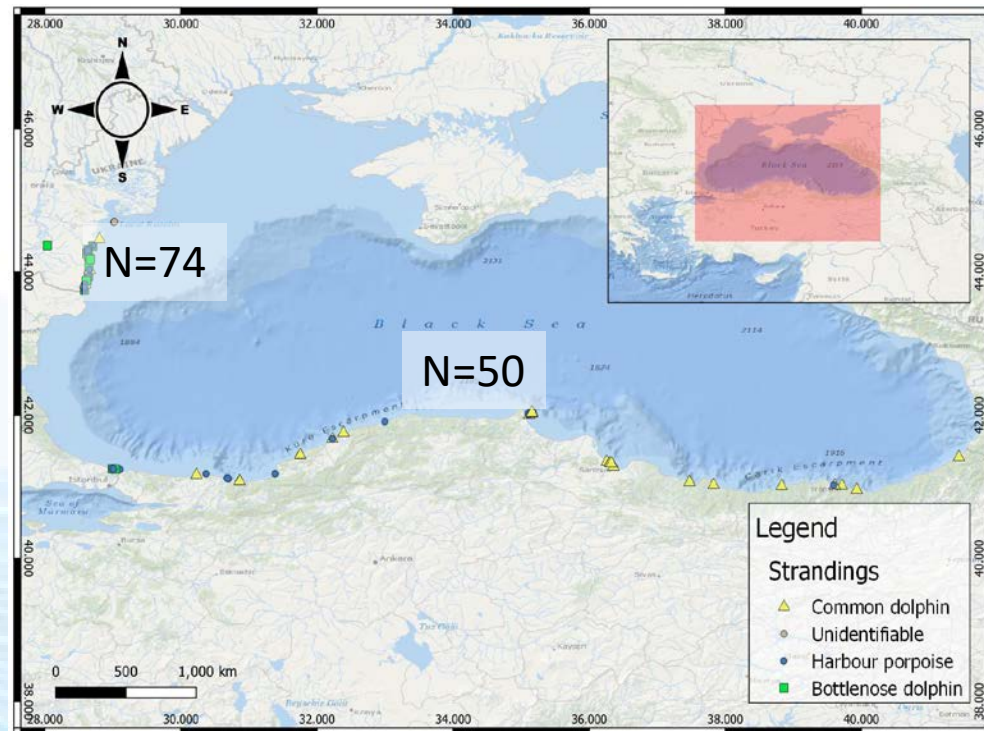


Species	No sightings	Group size	Abundance estimate (95% CI)		
			Spring 2019	Summer 2019	Summer 2020
Bottlenose dolphin	96	1-25	1719 (682-4335)	2705 (1097-6670)	1980 (944-4156)
Common dolphin	35	1-8	1032 (336-3626)	-	873 (378-2015)
Harbour porpoise	65	1-5	536 (209-1375)	333 (53-2074)	3775 (1934-9475)

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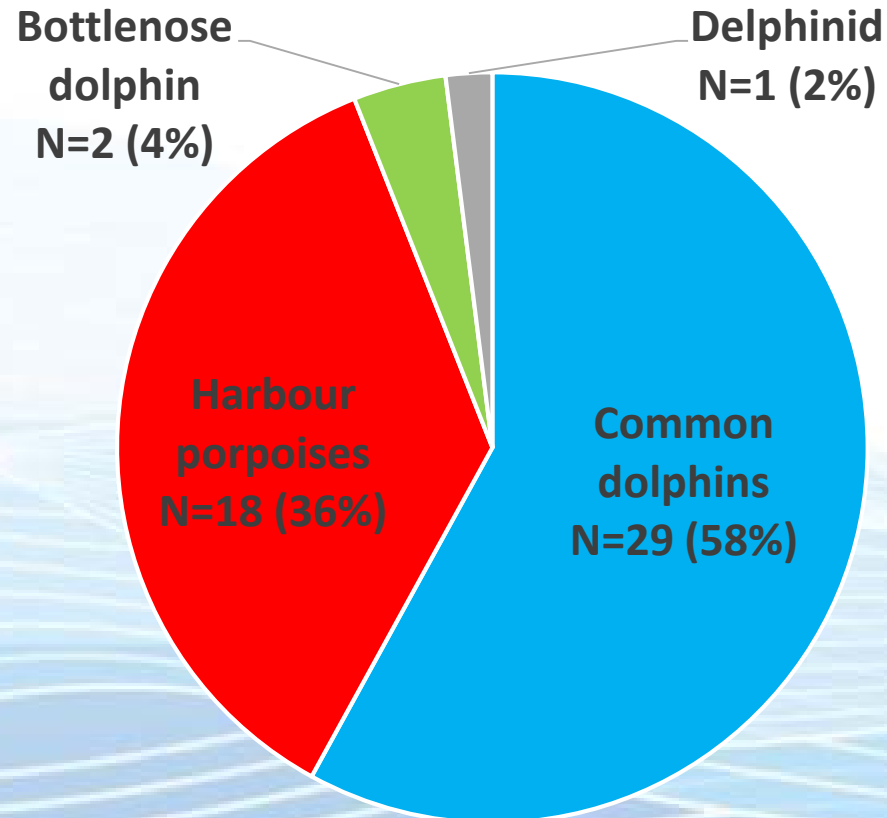
## a) Stranding survey

January 2019- May 2020



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## Species composition of strandings: Turkey (Total 50 strandings)



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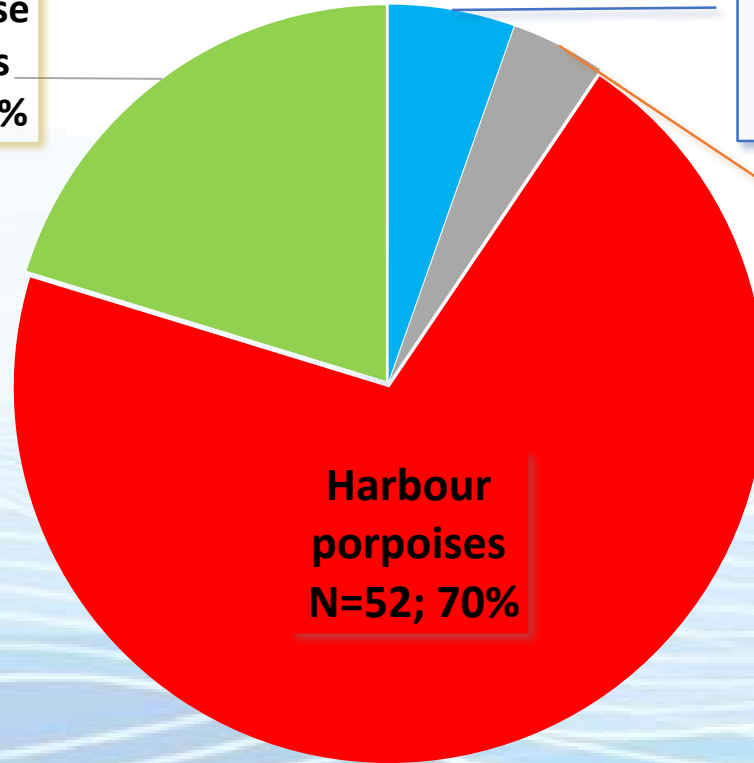
## Species composition of strandings: Romania (Total 74 strandings)

Bottlenose  
dolphins  
N=15; 20%

Common  
dolphins  
N=4; 6%

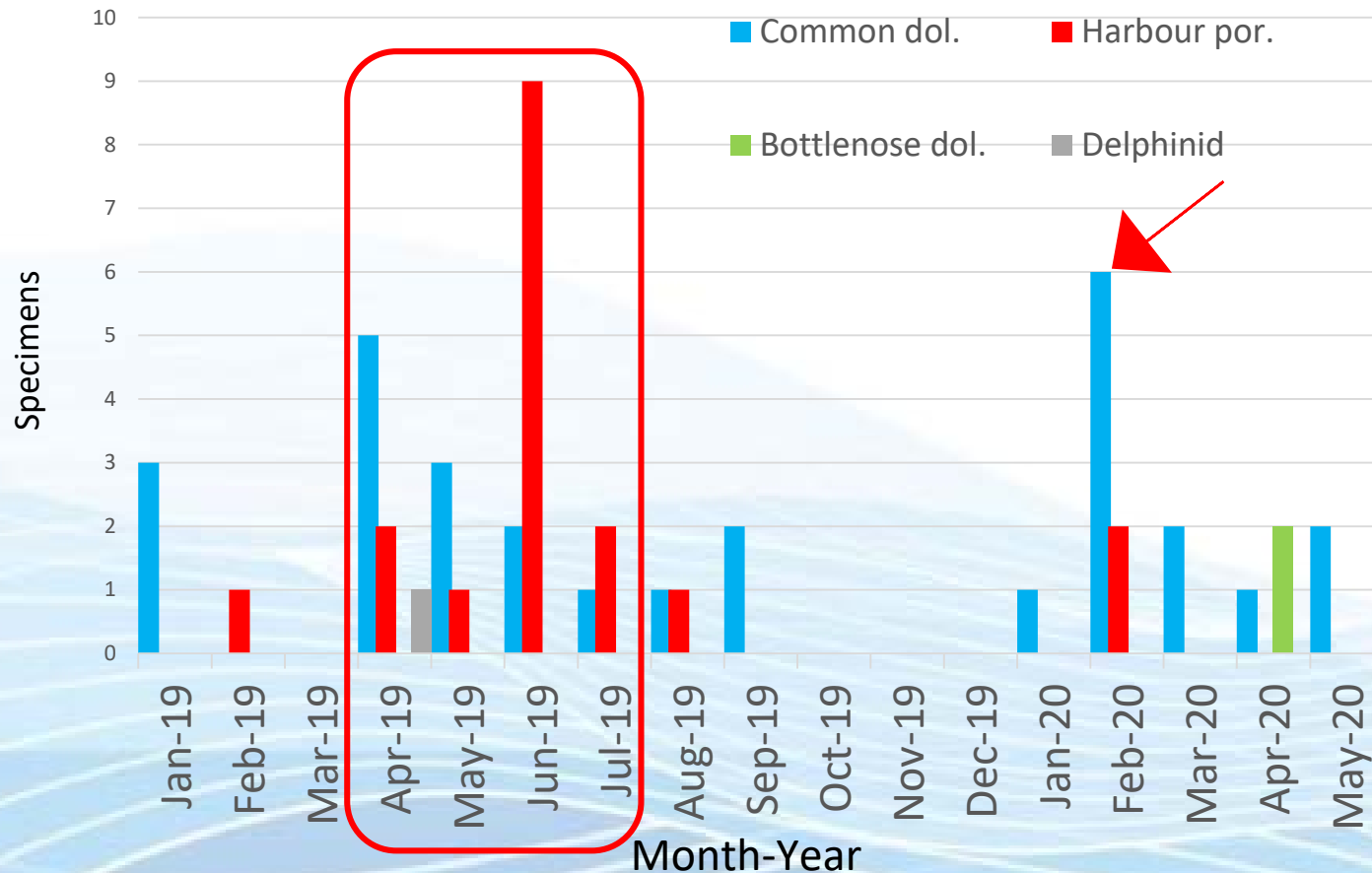
Delphinid  
N=3; 4%

Harbour  
porpoises  
N=52; 70%



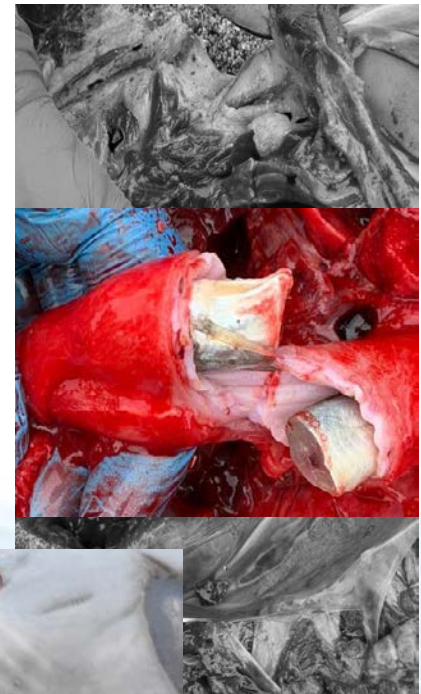
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## Monthly distribution of cetacean strandings: TURKEY



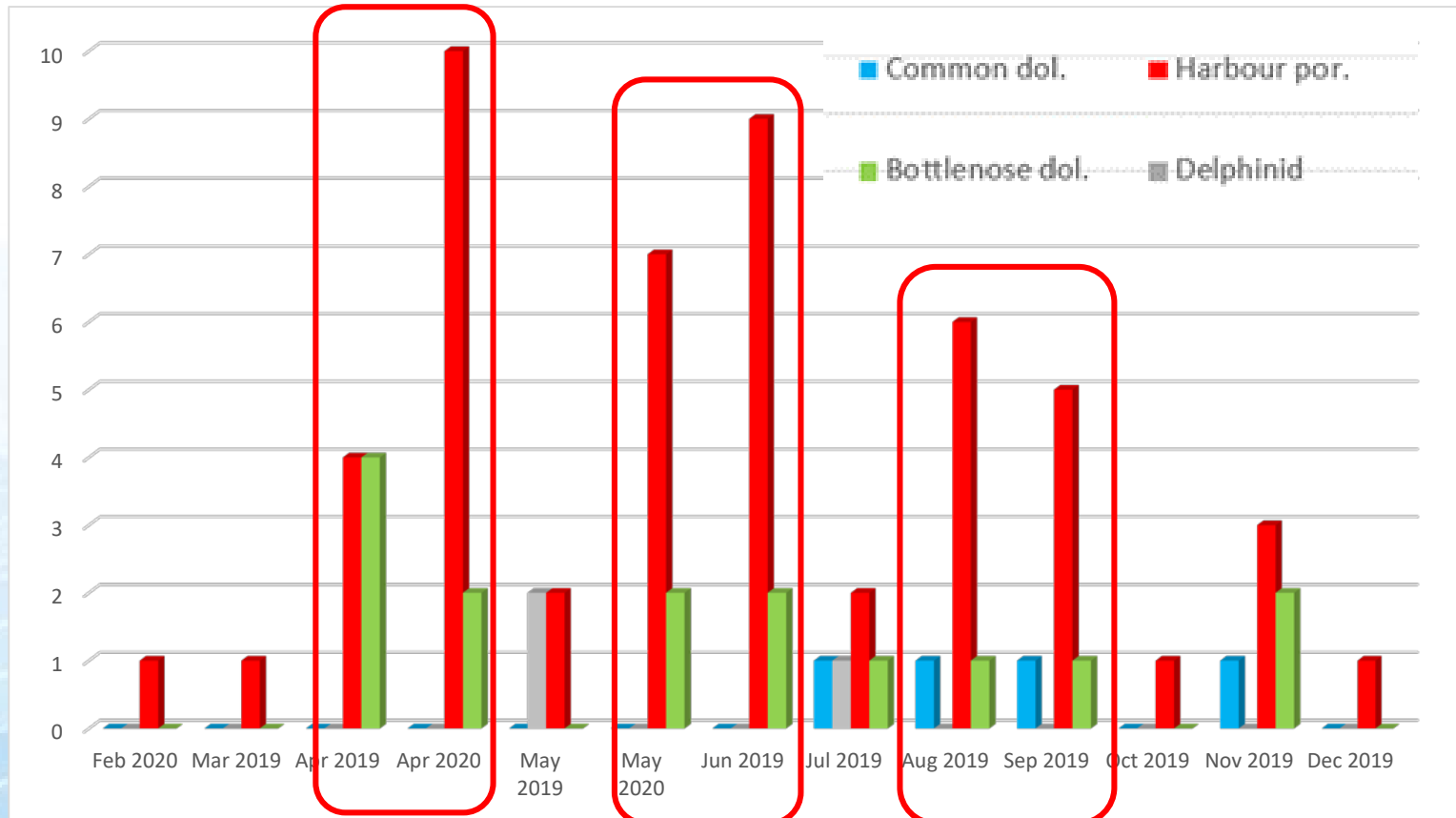
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Recent case of 2 common dolphin strandings on the Turkish coast (March 2021)  
– Indication of bycatch in fishing gears



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## Monthly distribution of cetacean strandings: Romania



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## Conclusions and Recommendations

- ❖ Using the standard method: Distance sampling
  - Compilation and comparison of data with neighbouring countries and eventually the whole basin
- ❖ The baseline data for future studies and support the national reporting within the two countries
- ❖ Detecting important habitats, such as Sakarya Canyon and coastal waters of Romania (CIMMA proposals) for conservation of cetacean species
- ❖ A functioning long-term stranding network is necessary for monitoring cetacean strandings along the Black Sea coasts for both countries. Particularly for Turkey as the Turkish coastline is long along the Black Sea.
- ❖ Citizen science can contribute to stranding and sighting reporting.



Thank you for your attention!

TÜRK  
DENİZ  
ARAŞTIRMALARI  
VAKFI

