



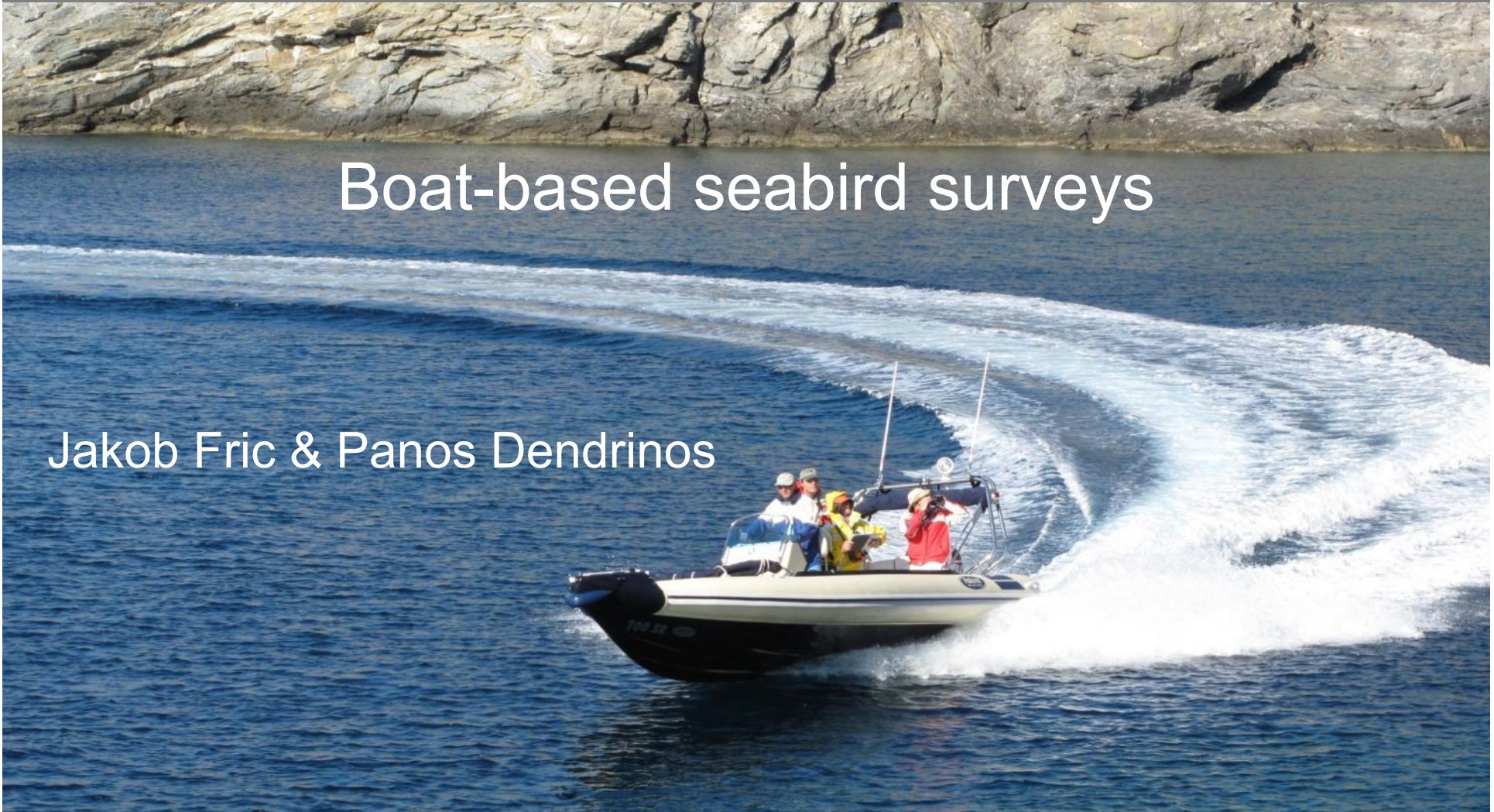
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Seabird LIFE Project Closing Workshop 3-4 December 2012, Athens



Boat-based seabird surveys

Jakob Fric & Panos Dendrinos



“Concrete conservation actions for the Mediterranean Shag and Audouin’s Gull in Greece, including the inventory of relevant marine IBAs”





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Boat based seabird surveys



- ▶ Boat-based line transects:
 - Assessment of spatial and temporal seabird distribution and behaviour
 - Recording of human activities
 - Emphasis on project target species
 - ▶ Mediterranean Shag (*Phalacrocorax aristotelis*)
 - ▶ Audouin's Gull (*Larus audouinii*)
- ▶ Methods:
 - At open sea – European Seabird as Sea method (ESAS)
 - Along the coastline – “coastal census”



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European Seabirds at Sea (ESAS)



- ▶ Standardized international method for recording seabird numbers and behaviour at sea



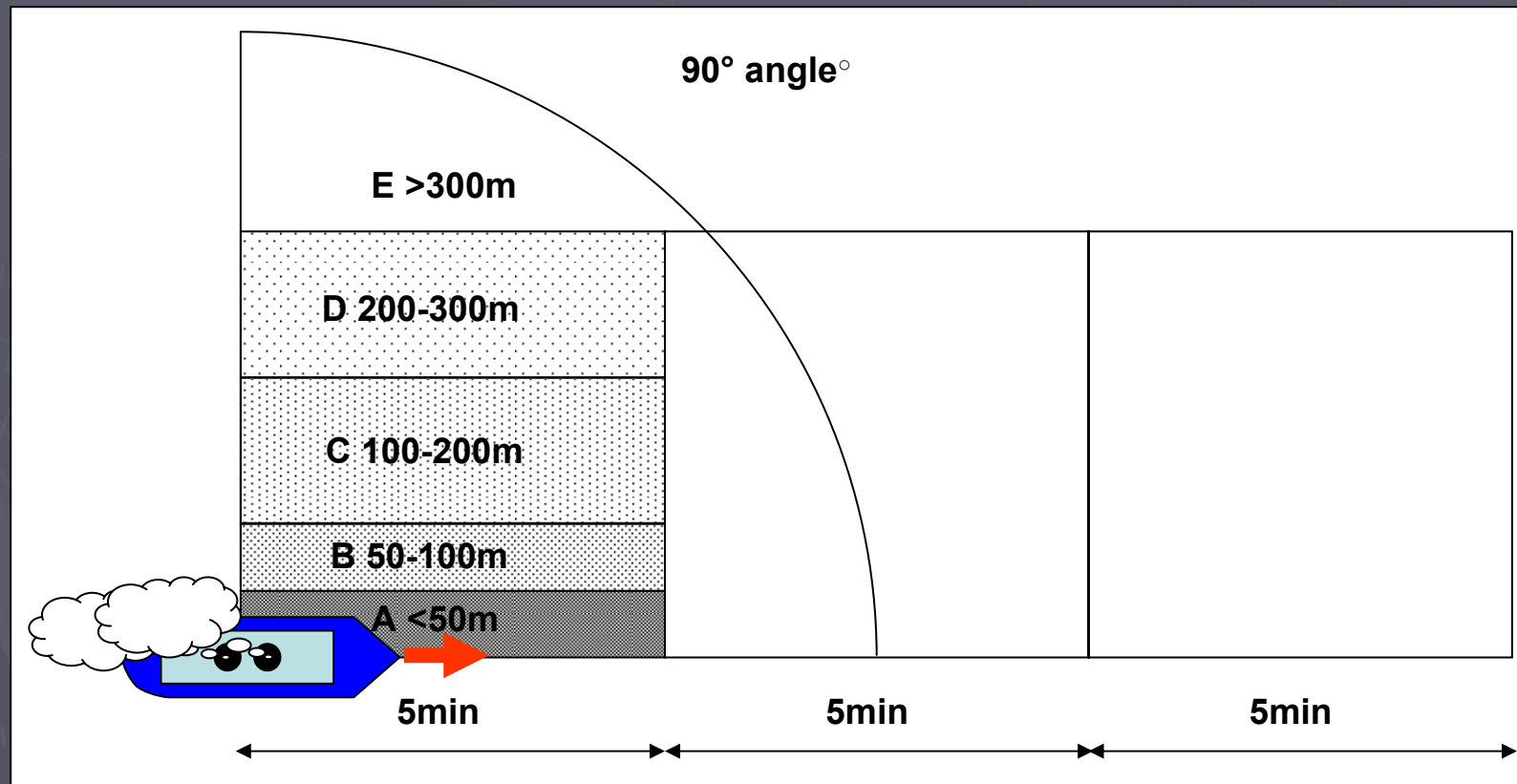


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European Seabirds at Sea (ESAS)



- ▶ Seabirds recorded continuously
- ▶ Vessel locations and human activities every 5 minutes



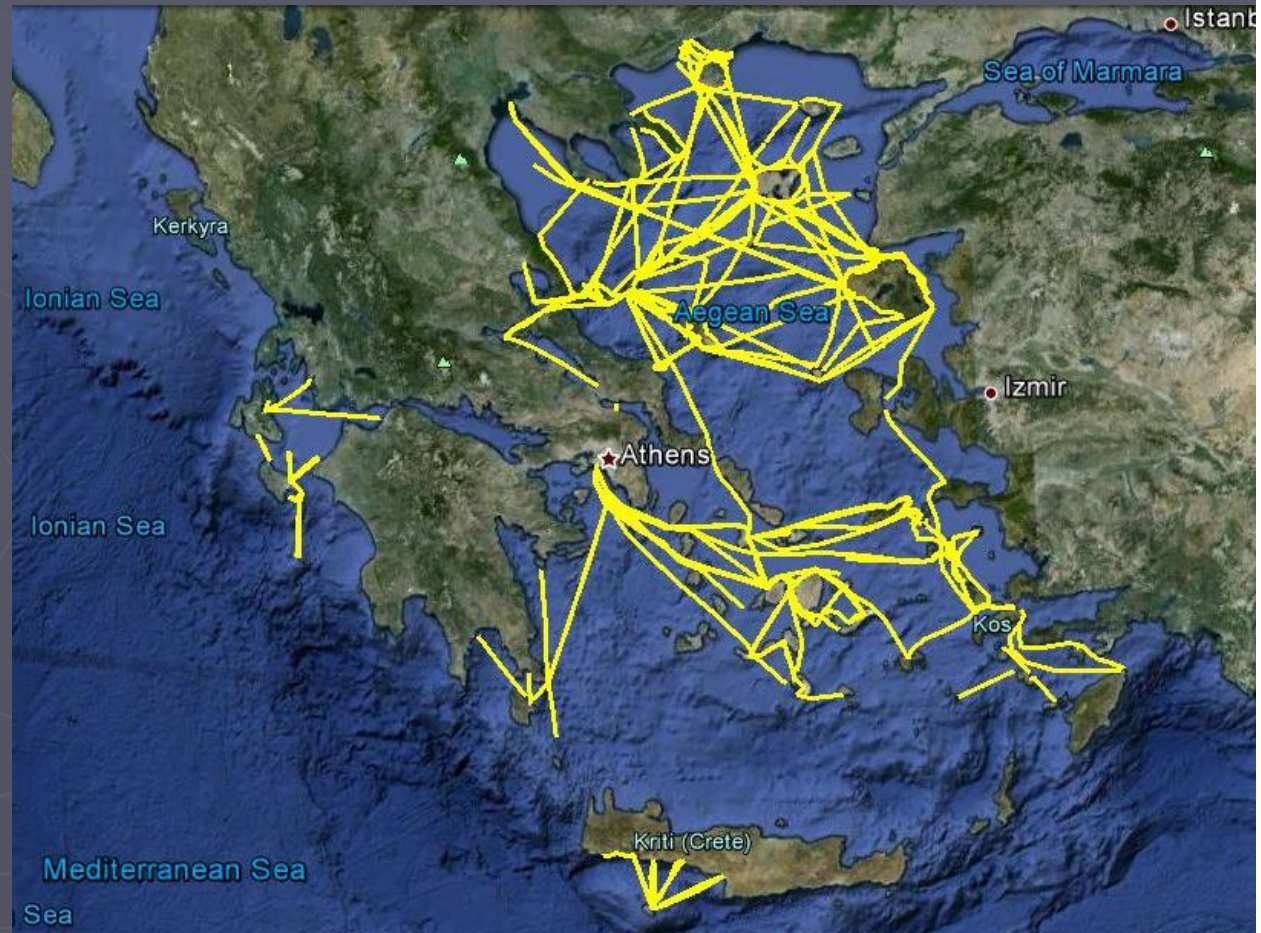


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ESAS survey effort



- ▶ Surveys in wider marine areas of 17 project SPA sites
- ▶ 266 ESAS trips
- ▶ Total distance: 9823nm
 - HOS: 6373nm
 - MOm: 3450nm





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Coastal census



- ▶ Continuous recording of seabirds along the coastline
- ▶ Particularly important for coastal species of seabirds



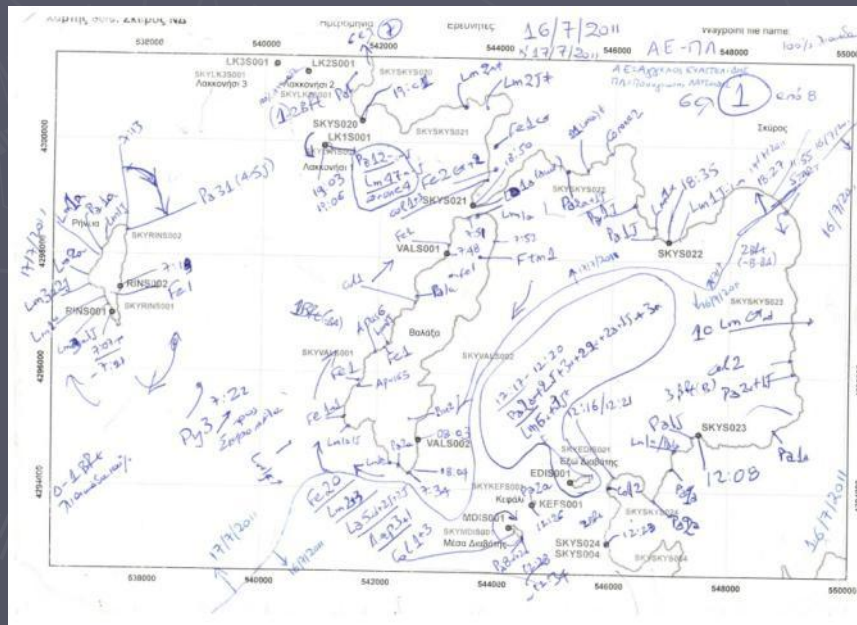
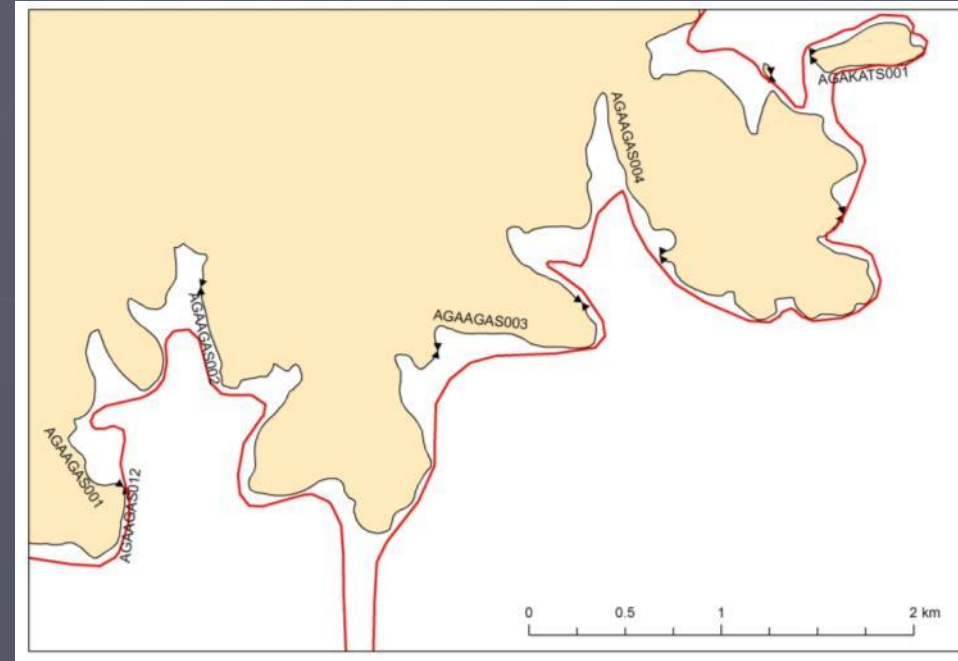


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Coastal census data recording



- ▶ Birds are recorded on the map along predefined sectors of the coastline
- ▶ Total effort: 1605nm





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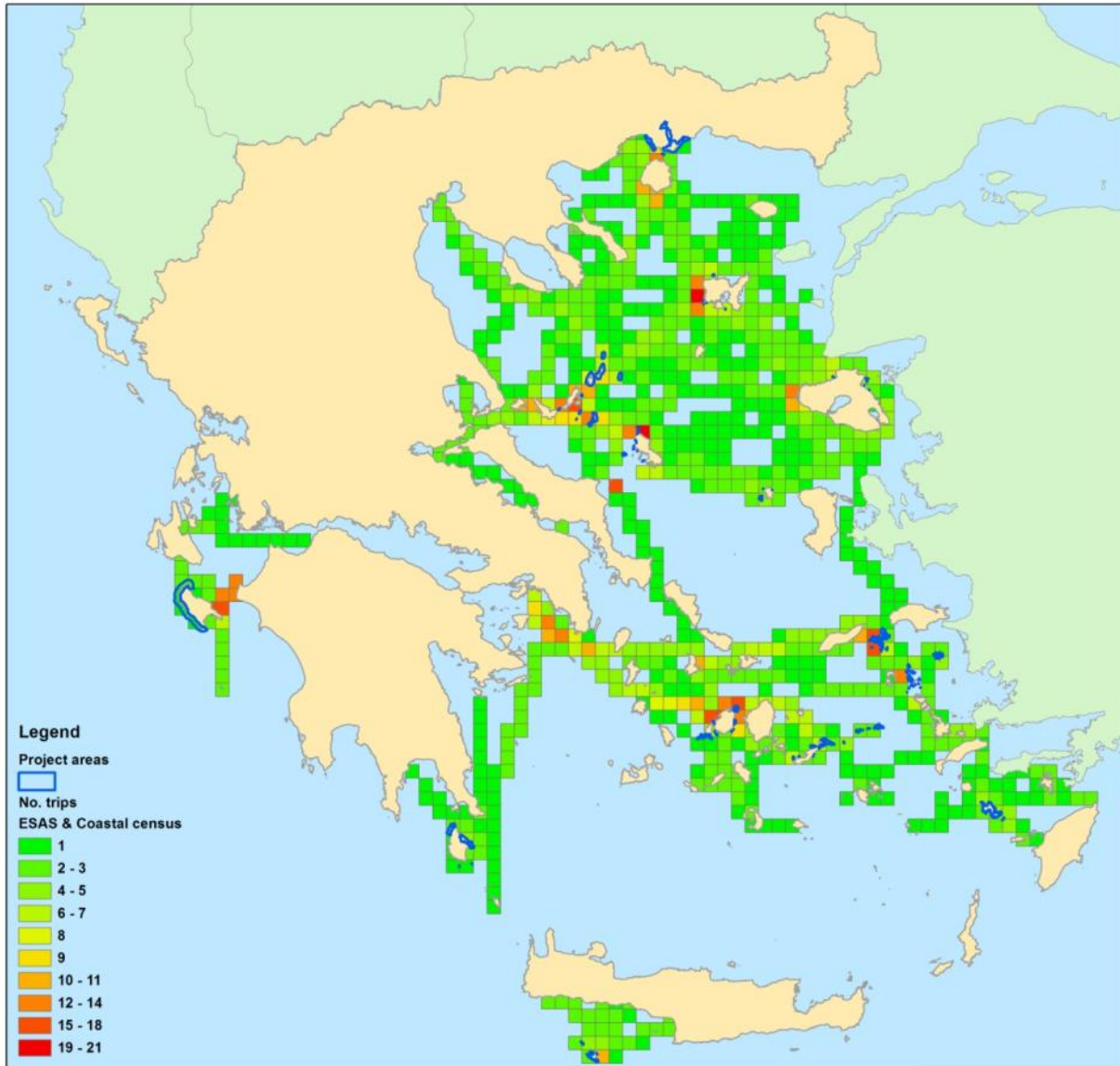
Results: surveyed marine areas



- Wider marine areas of all 17 project SPA sites

ESAS & Coastal Census Geographical Coverage

September 2012



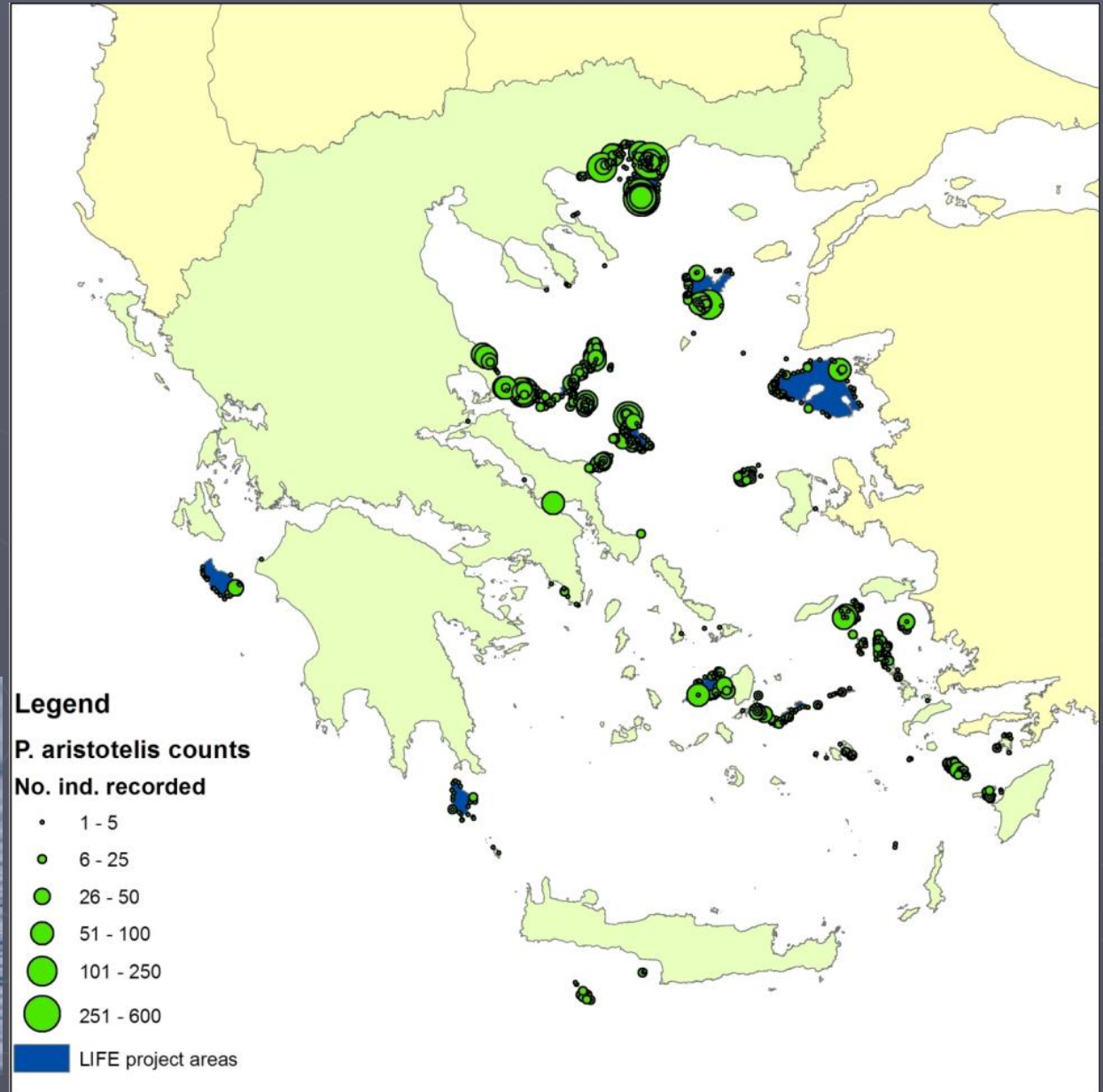


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Results: Mediterranean Shag



- ▶ No. individual recorded:
7826
- ▶ Largest concentrations in the Northern Aegean Sea



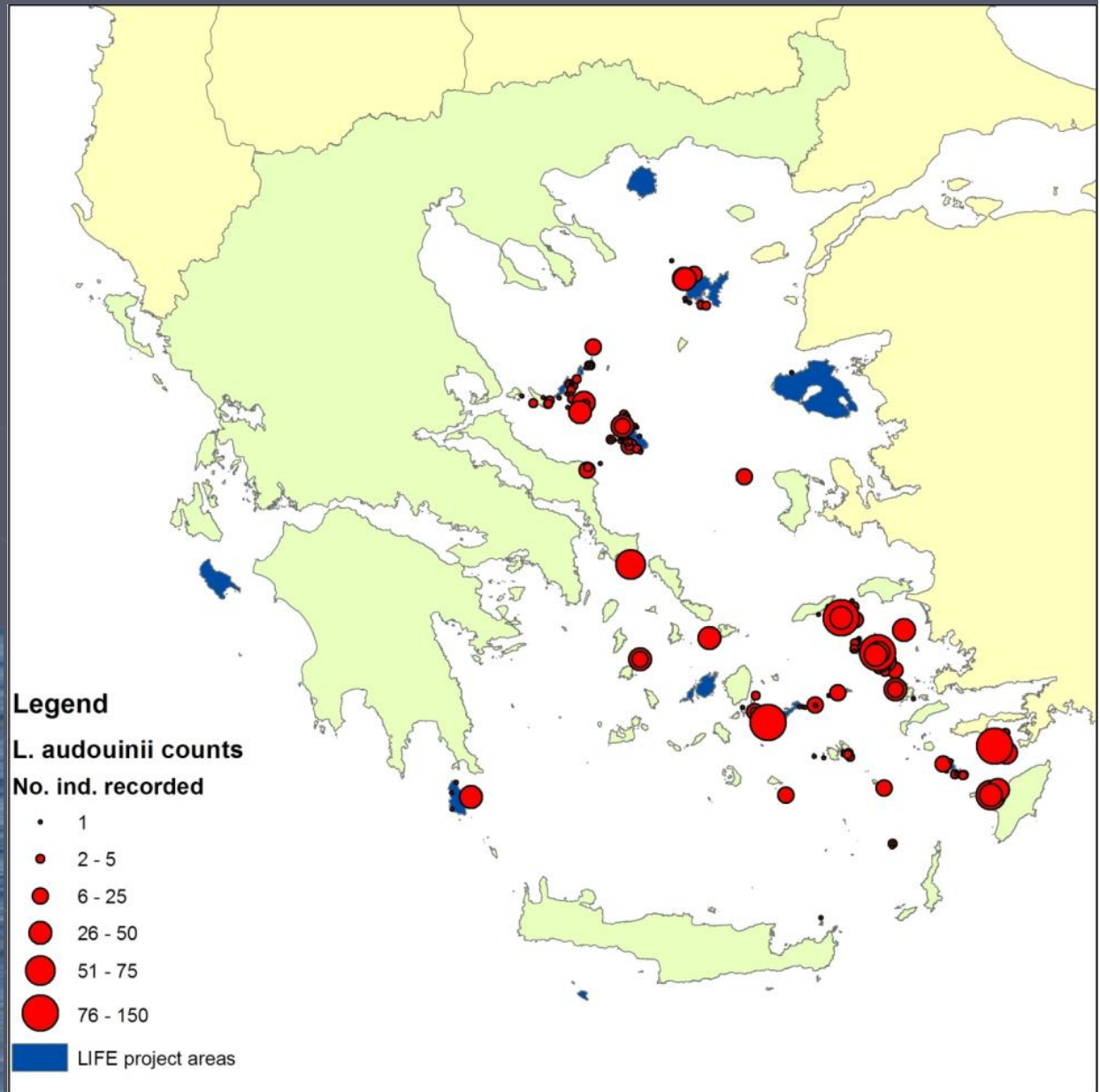


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Results: Audouin's Gull



- ▶ No. individual recorded:
1390
- ▶ Recorded only in the Aegean Sea





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The importance the North Aegean for the marine wildlife



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Northern Aegean Sea





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Northern Aegean Sea



Panos Dendrinou/www.biophoto.gr



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Northern Aegean Sea



Common dolphin, *Delphinus delphis*
Bottlenose Dolphin, *Tursiops truncatus*
Striped Dolphin, *Stenella coeruleoalba*
Risso's Dolphin, *Grampus griseus*
Cuvier's Beaked Whale, *Ziphius cavirostris*
Fin Whale, *Balaenoptera physalus*
Sperm whale, *Physeter macrocephalus*
Harbour Porpoise, *Phocoena phocoena*



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Northern Aegean Sea





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Northern Aegean Sea



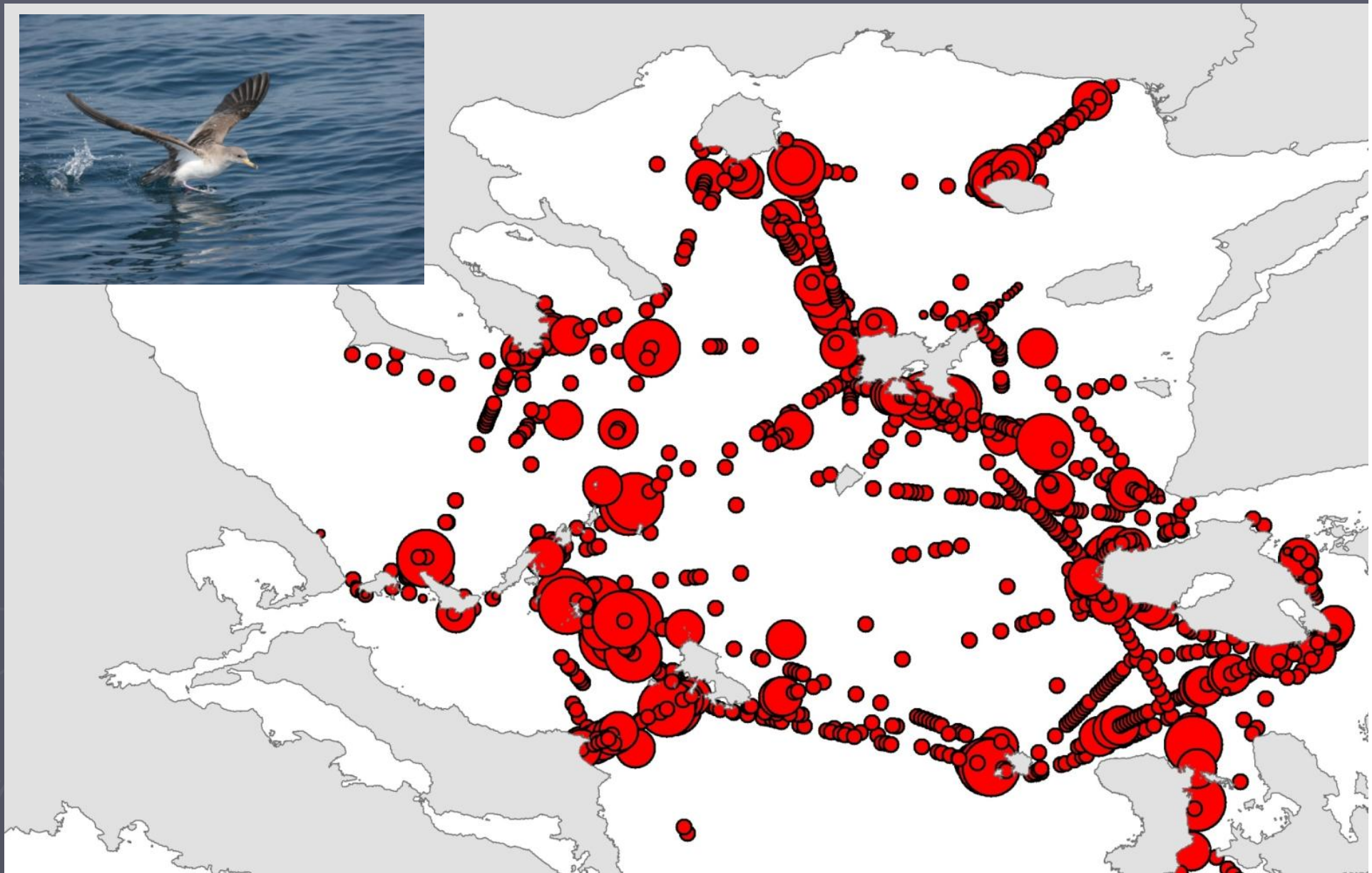
3450 nm





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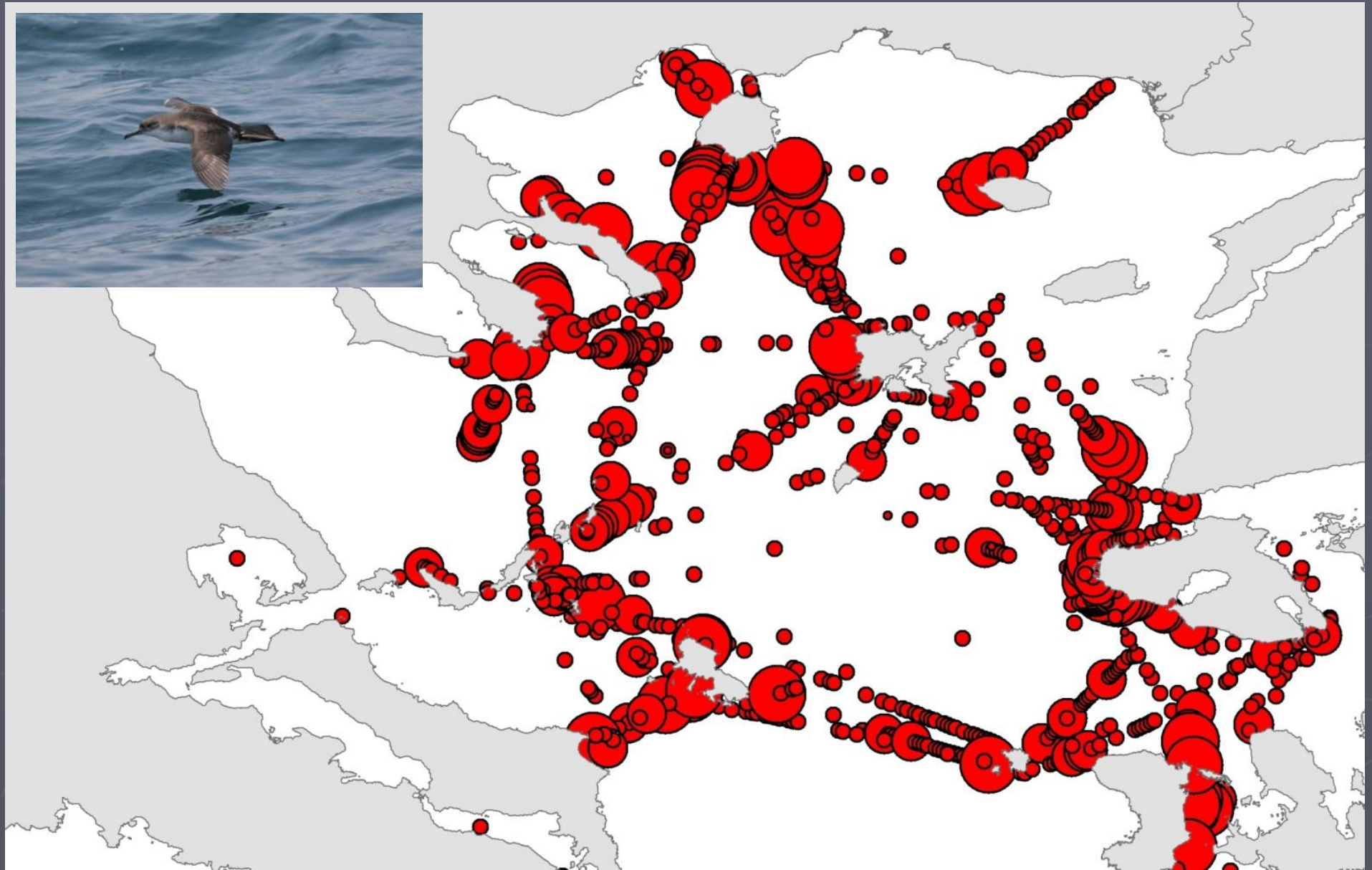
Cory's Shearwater *Calonectris diomedea*





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Yelkouan Shearwater *Puffinus yelkouan*





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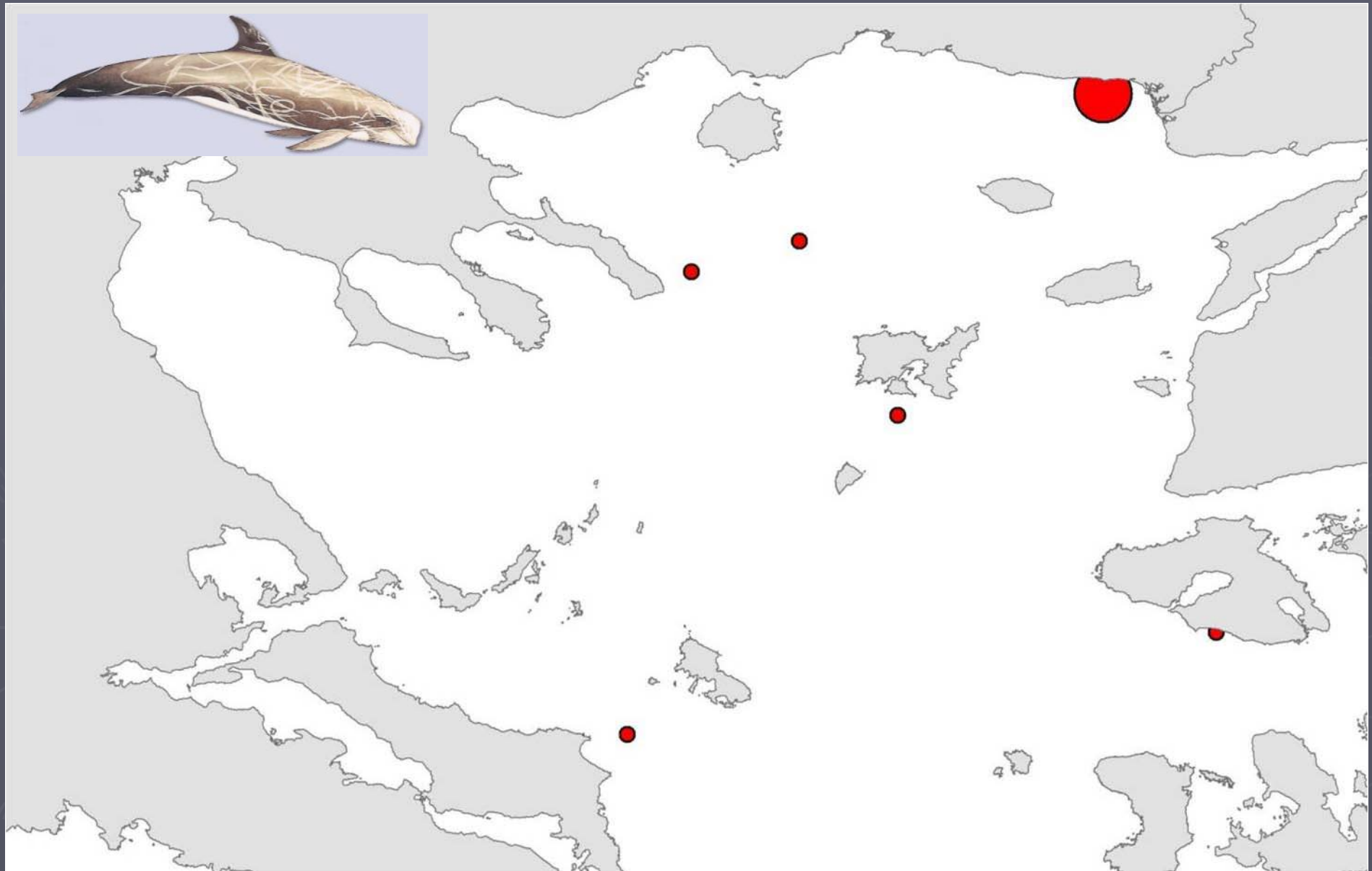
European Storm-Petrel *Hydrobates pelagicus*





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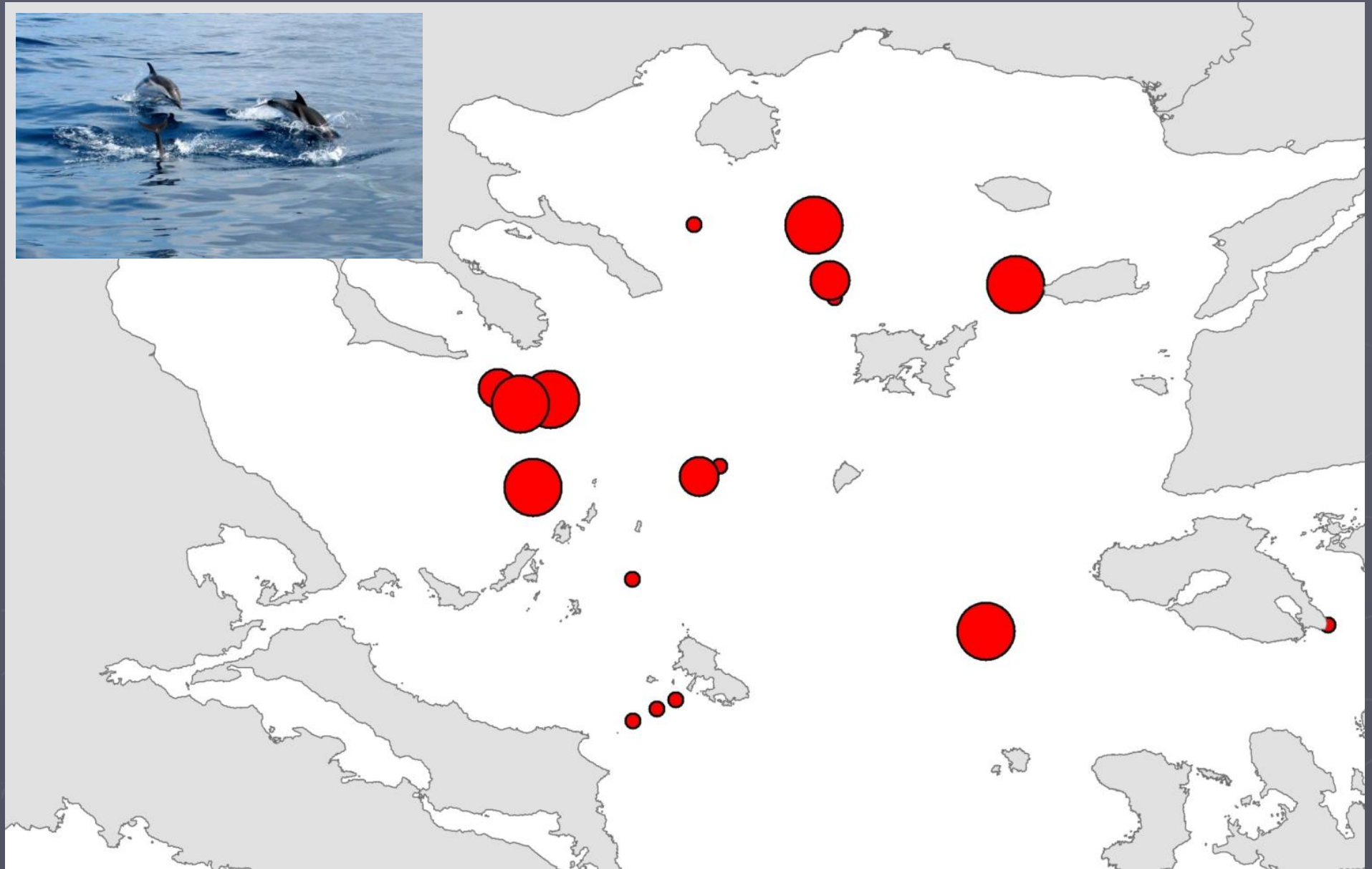
Risso's Dolphin *Grampus griseus*





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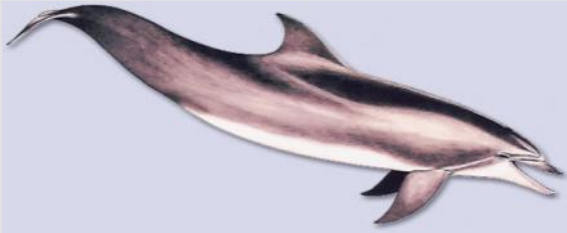
Striped Dolphin *Stenella coeruleoalba*





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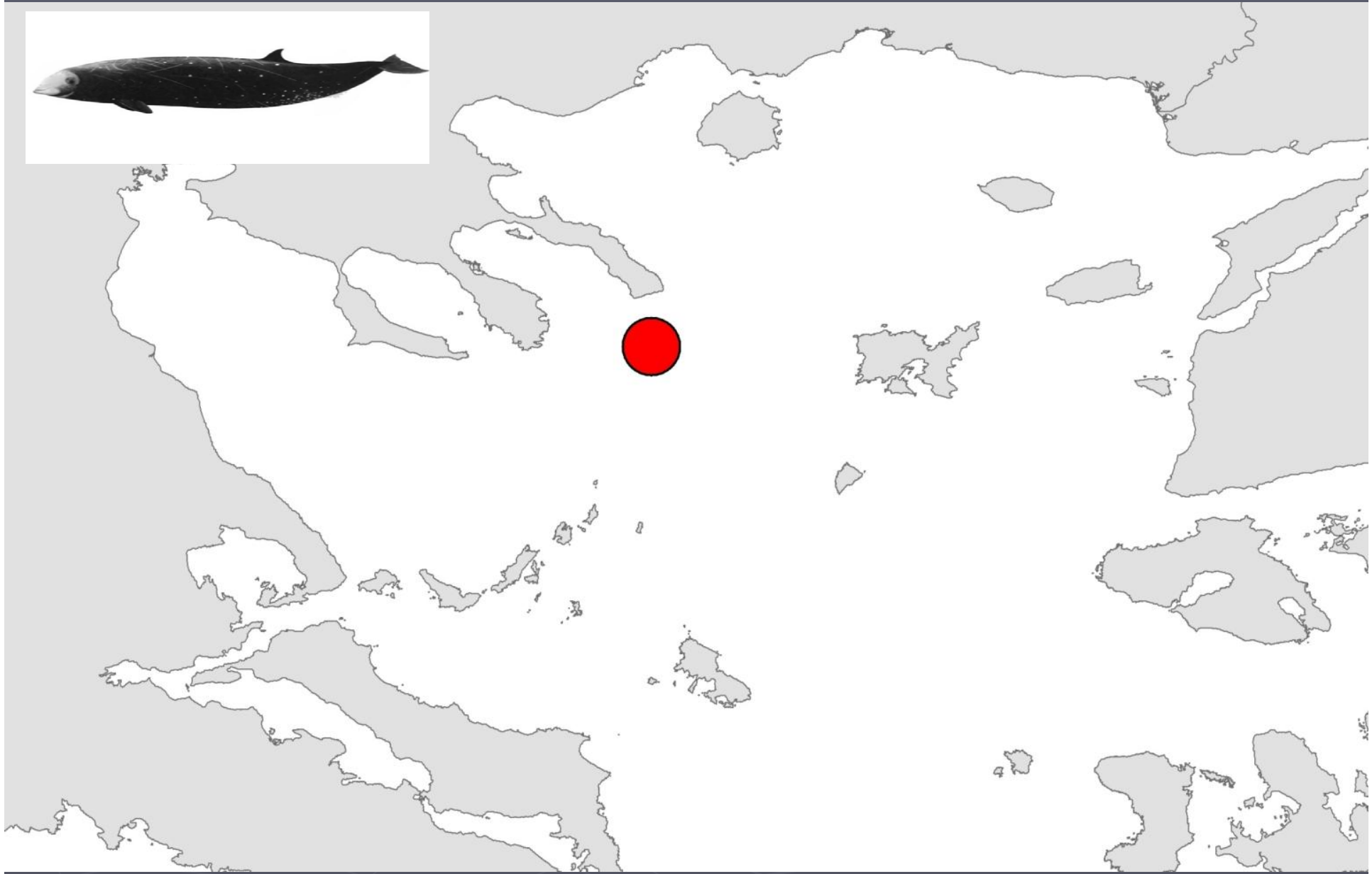
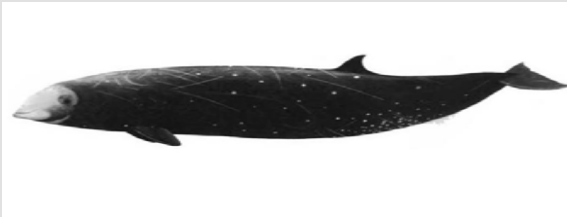
Bottlenose dolphin *Tursiops truncatus*





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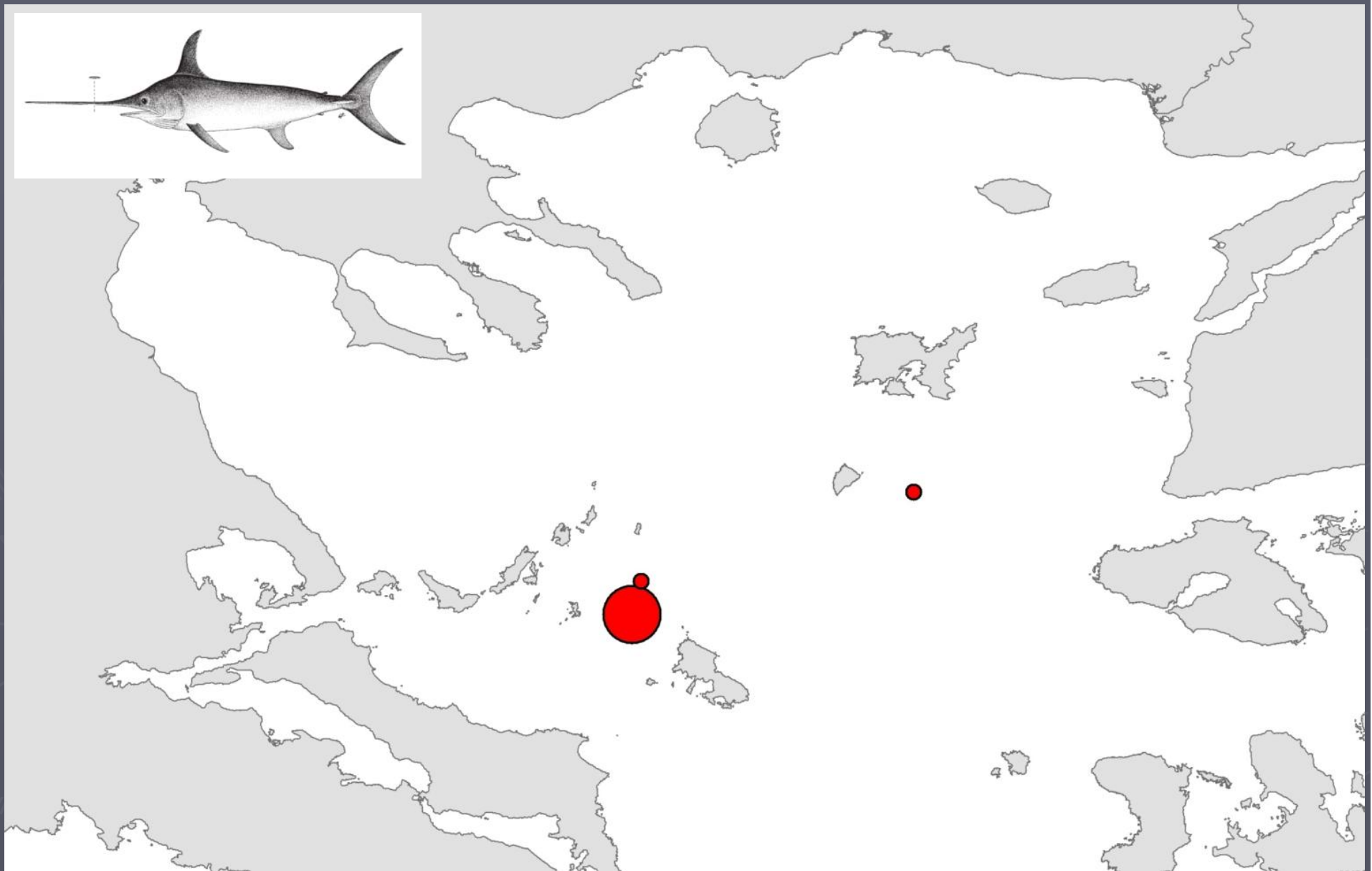
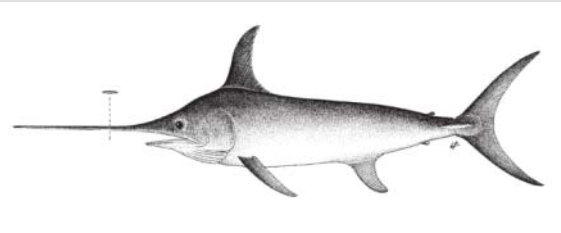
Cuvier's Beaked Whale *Ziphius cavirostris*





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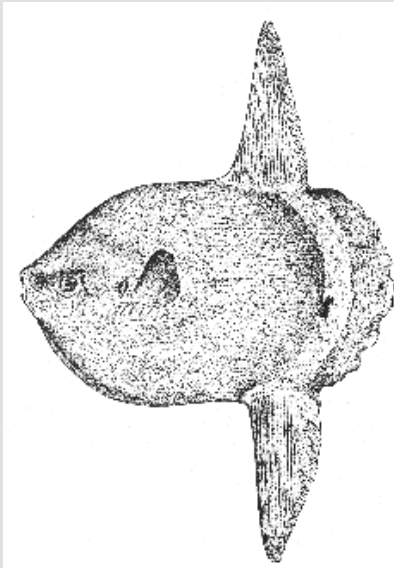
Swordfish *Xiphias gladius*





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Ocean sunfish *Mola mola*



Thank you for your attention

